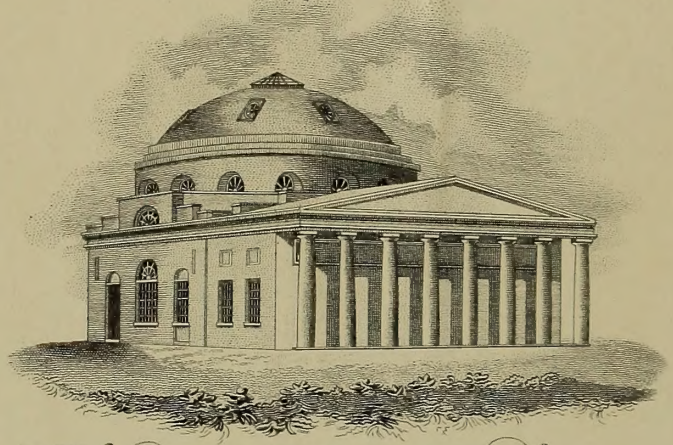
Rebound
JUN 13 1940
BOUND BY CHARLES L. ELLIOTT 1901 ROSEMILL ST BALTIMORE
WE BIND BOOKS OF ALL DESCRIPTIONS

LIBRARY
OF THE
School of Medicine



University of Maryland

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

These dissertations were digitized in 2011-2012 and are available at the UM Digital Archive (archive.hshsl.umaryland.edu) and the Internet Archive (www.archive.org).

(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1870 (a) [1]

Author	Title	Notes
Teackle, St. George W. Jr.	Sight	
Crim, William H.	Post-Mortem and Diagnosis	
Whitehead, William H.	Dentition	
Shock, Jack L.	Traumatic Hemorrhage	
Speight, Richard H.	Bronchitis	
Mobberley, James Bradley	Chloroform by Inhalation	
Stansbury, John T.	Gonorrhoea	
Stansbury, John W.	Typhoid Fever	
McKown, John Morgan	Alcohol, Consideration of Its Physiological Actions and Therapeutic Applications	
Harris, John W.	Typhoid Fever	
Dorsey, William T.	Stricture of the Urethra	
Pitts, Charles	Billious or Remittent Fever	
Harker, John F.	Circulation	
Grimes, John F.[2]	Intermittent Fever	(No title page; Incomplete?)

[1] Water damage throughout the volume.

[2] Not in sources consulted for 1870. No date on thesis. Could be John H. Grimes 1868 or Henry J. Grimes 1868.

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

Author	Title	Notes
Bagley, Paul	Practice Abroad and at Home	
Maynard, Clinton	Typhoid Fever	
Griffith, William B.	Syphilis	
Spiller, James S.	The Circulation	
White, Walter Walton	Clinical Treatment of Six Cases	
Reamer, Norman G.	Bronchocele	

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

UNIVERSITY OF MARYLAND

THESES

1870 (a)

Teackle, St. George H. G. W. Jr.	Sight[1]	20p.
Cørim, William W. H.	Post-Mortem and Diagnosis	16p.
Whitehead, William Wm. H.	Dentition	18p.
Shock, Jack L.	Traumatic Hemorrhage	26p.
Spright, Richard R. H.	Bronchitis	16p.
Mobberly, Bradley James B.	Chloroform by Inhalation	28p.
Stansbury, John T.	Gonorrhoea[2]	19p.
Stansbury, John W.	Typhoid Fever[3]	24p.
McKown, John Morgan	Alcohol, Consideration of Its Physiological Actions and Therapeutic ~~Their~~ Applications[4]	32p.
Harris, John W.	Typhoid Fever[5]	12p.
Dorsey, William T. S.	Structure of the Urethra	27p.
Pitts, Charles ~~John~~	Billious or Remittent Fever[6]	19p.
Harker, John J. F.	Circulation	47p.
Grimes, John F.	Intermittent Fever[7]	31p. No title page
Bagley, Paul	Practice Abroad and at Home	24p.
Maynard, Clinton	Typhoid Fever	23p.
Griffith, William W. B.	Syphilis	17p. No title page
Spiller, James S. L.	The Circulation	19p. No title page
White, Walter W.	Clinical Treatment of Six Cases	23p.
Reamer, Norman G.	Bronchocele	28p.

(1) Water damage and fading
(2) Water damage and fading
(3) Water damage and fading
(4) Water damage and fading
(5) Some fading
(6) Water damage and fading
(7) Small holes on last two pages, final page(s) may be missing

24

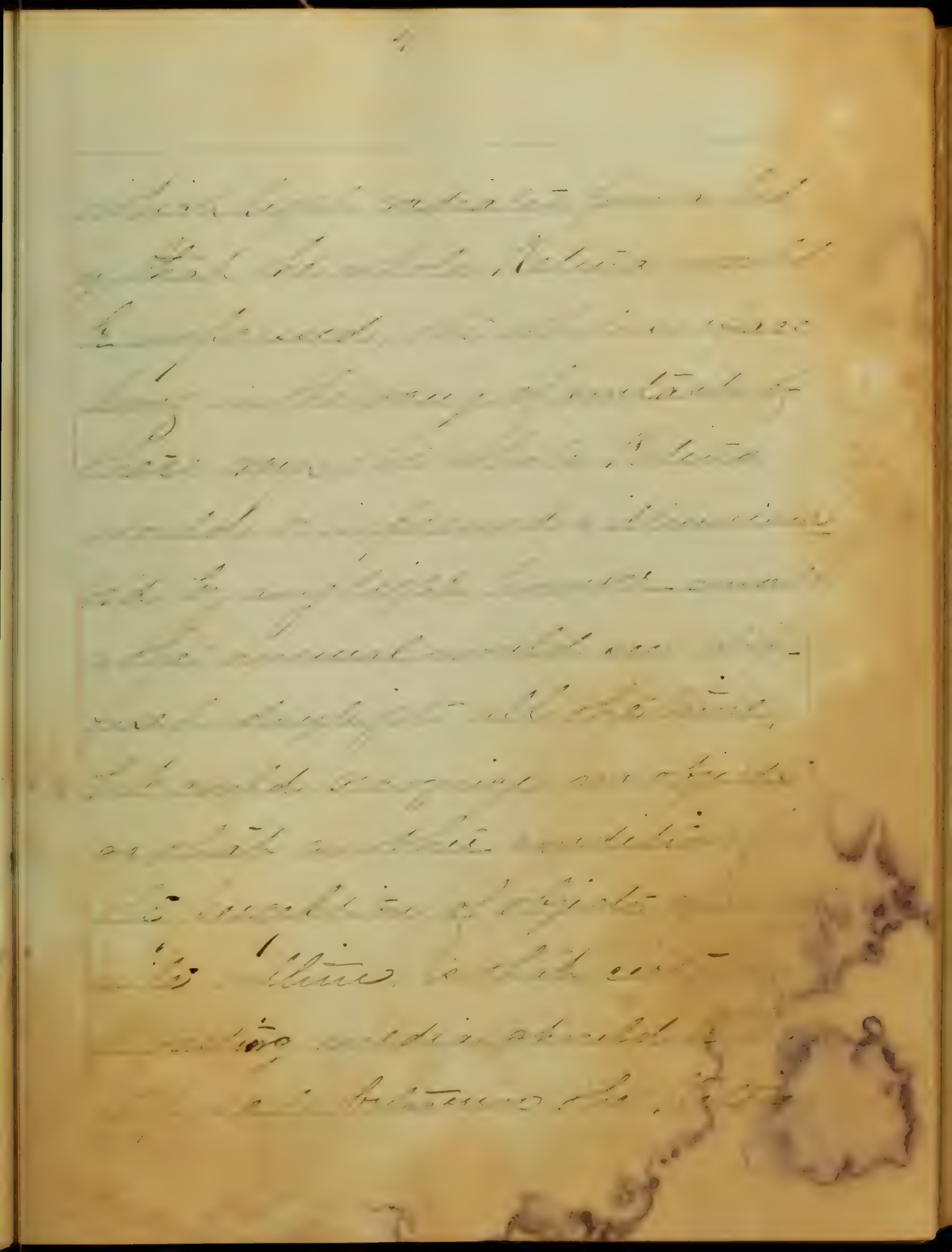
Thesis on Sight.

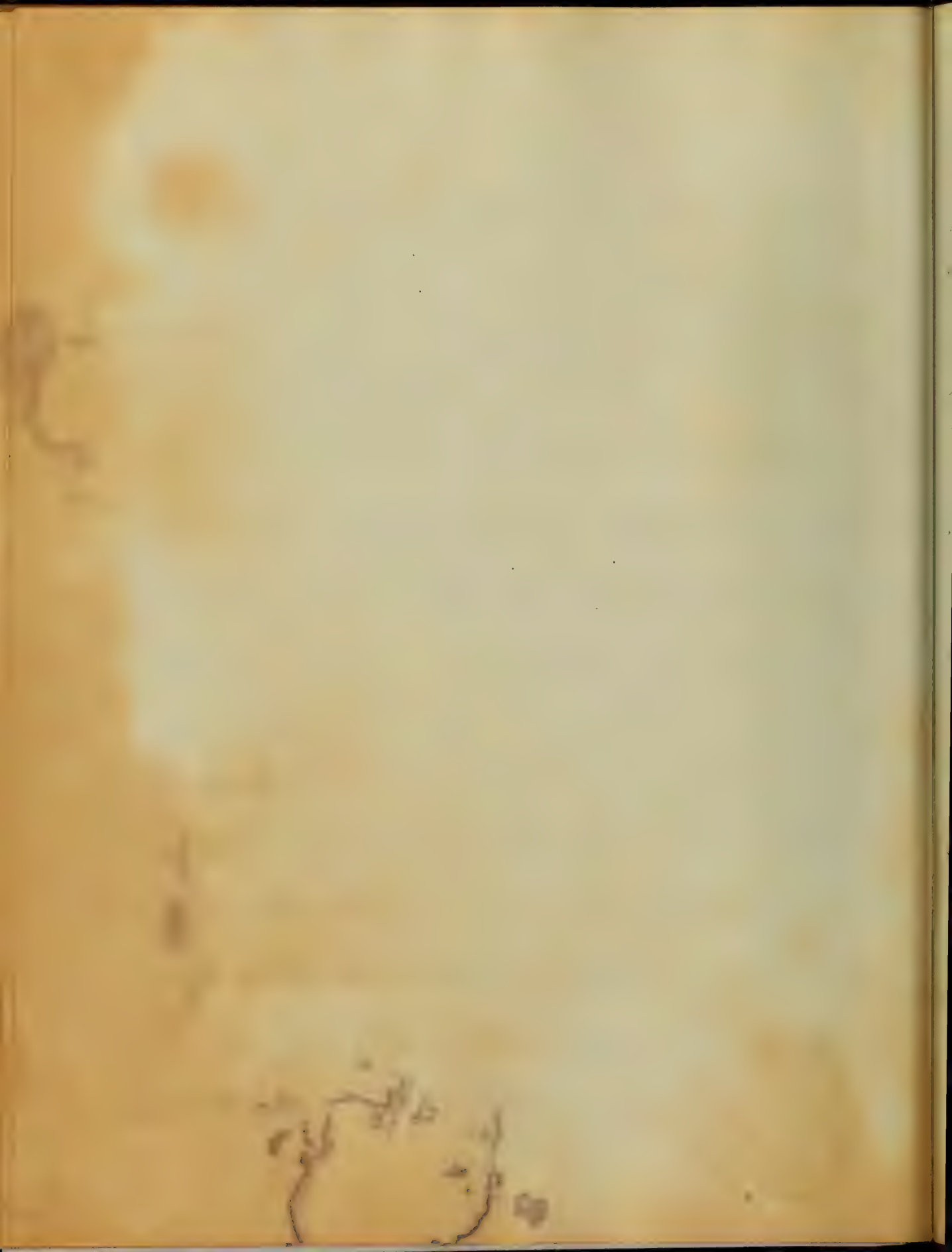
by P. L. M. MacKie, jr.

University of Maryland.

March 18, 70.

16939
1M6





attached in front of the [illegible]
the choroid coat, is a ring of muscular fibres run-
ning from before backward, & in an
oblique direction called the "Cilli-
ary muscle." The humours consti-
tute the refractive media. The
cilliary muscle adjusts the eye to
vision at different distances. The
eye is naturally adjusted for look-
ing at distant objects, so this is allow-
ed with no muscular effort, but,
when we are looking at near ob-
jects, we are conscious of an effort
the pupils also diminish [illegible]
not for anything [illegible]

AN

Inaugural Dissertation

ON

Diet-modern and Diagnosis

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

W. H. Crim

Of

Loudoun Co. Virginia

Session of 1869—70.

The terms "post-mortem examination" "autopsy*" and "necropsy†" are synonymous and express both the operation by which the internal organs of a dead body are exposed to view and the record of the appearances exhibited by them.

The necessary conditions for accurate diagnosis on the part of the physician are numerous. The first and indispensable condition is a thorough knowledge of of pathology.

He who is not familiar with the

* Autopsy; from αὐτος himself ὄψομαι I see.

† Νεκρος dead body; ὄψομαι I see

signs of all diseases is not fit-
to give an opinion of any one in
particular. Another condition no less
important than the thorough
knowledge of diseases is long and
careful observation and ability by
means of frequent distinctions
to confirm or rectify a diagnosis
made during the progress of
disease.

The physician who has
not for a long time applied his
knowledge at the bedside and
assisted at many post-mortem
examinations is ~~not~~ ~~fit~~ certainly

unfit to form a correct opinion of the diseases he observes. Supposing his diagnosis to be correct in some cases it would be the exception in a great number and in all it would be formed slowly and doubtfully. Skill in diagnosis which constitutes in connection with a readiness to practice indications that quality known as Medical tact. Can only be acquired gradually. It implies the union of all the faculties necessary to Judgment

integrity of the senses which thus distinctly transmit every modification of the phenomena within their jurisdiction a firm and penetrating mind capable of properly collating comparing with discernment and deducing from facts the inferences and consequences which they furnish and with united boldness and prudence in due proportion daring at times to obey the dictates of a seeming inspiration which is really an accurate [illegible] although a rapid

[illegible] of the most [illegible]
phenomena of the disease. ——
[illegible] we here state that these
qualities are most perfectly
demonstrated by our much beloved
Prof — [illegible] Smith
But they are rarely combined
in one individual and the
number of physicians
remarkable for great
skill in diagnosis is
and always will be very
limited. But this is a digress
ion. In order to properly
appreciate the changes brought

by disease we should acquaint ourselves with each and every part in a normal ~~bfy~~ physiological state as pathology is nothing more than "deranged physiology."

The numerous alterations caused by disease in the structure of our organs have of late years greatly greatly attracted the attention of the physicians who have ~~infer~~ based upon them as it were a new science which they have named pathological

anatomy but which ought
rather to be called, or considered
a branch of pathology the
history of disease is necessarily
incomplete when considered
independent of structural
alterations effected by them
and the study of these alterations
is almost without interest
when disconnected from
the history of the disease &c
I am surprised that for so long
a period physicians showed
so little zeal in obtaining the
light that microscopy could

[illegible] [illegible] from each other then:
and it is still more astonish
that at the time when the anat
of man in health was
cultivated with most success
the lesions which disease had
effected in his various ~~[illegible]~~ organs
should have seldom attracted
attention. Fallopius Vesalius
and Eustachius who made such
great advances in Anat[illegible] and
that "grand old Harvey"
who discovered the circulation
of the blood lived not far
from a ~~century before~~ ~~the~~

century before the first
physicians who engaged in the
study of pathological anatomy.
And indeed it was not untill
the end of the last century
that this branch of pathology
was generally studied
Since then all educated
physicians take ~~att advantage~~
take every opportunity to
see (after death the nature
of the lesion which caused
or accompanied the phenomena
observed during life
and many treatises and

important memoirs have
been ~~[illegible] [illegible]~~ written
upon this subject by the
most distinguished physicians
and pathologists of every age
among the first to develop
the subject was Bayle, Baillie
Laennec Dupuytren &c &c
And now they are quite a
number whom we follow daily
and whose observations are
throwing great light upon the
different Maladies and is
it [illegible] entirely revolutionizing
the art and science of —

[illegible] and indeed
the advantages derived from
the study of pathological
anatomy are now so
generally appreciated that
it is unnecessary to enumer-
ate them.

When we consider the
numerous diagnosis corrected
by postmortem examinations
the positive information
~~[illegible]~~ they furnish
respecting the seat of many
diseases ~~[illegible]~~
and how important they

always are the confirming
or rectifying our diagnosis
it cannot be denied
that these investigations
~~[illegible]~~ have greatly
conduced ~~[illegible]~~ to the advance
of our art and must
continue to do so to an
indefinite extent
As I said before in order
to discover and appreciate
the lesions produced by
disease we must first
have a clear idea of the
conformation and structure

It is none the less essential
& most indispensable to
the man a persons knowl-
edge and accurate dis-
cription or rather from
actual observation of the
various alterations
which the organs are
liable //

Shal I or Should I
say more? I think not—
as for the mode of conducting
a post mortem & the different
lesions made manifest in
the multitude of diseases—

AN

Inaugural Dissertation

ON

Dentition

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

William H. Whitehead

Of

North Carolina

Session of Eighteen hundred & seventy 1878

Dentition

So much has been said upon
Dentition that it leaves very
little for a Student to say.
I shall now attempt to write
a short Thesis upon it. Not
from my own personal observation
but from what I have learned
from different Authors.
During the earlier months
of Infancy the Child is
intended to draw its whole
nourishment from its Mother's
breast. And there is no solid
food to be bro't down

before being swallowed and conveyed to the stomac for digestion. The power of suction alone is required for the performance of which the lips and tongue are amply sufficient. In accordance with this state of the constitution and mode of life, the jaws for some time after birth are short shallow and unprovided with teeth; and the muscles which put them in motion are feeble and delicate in structure. But in the course

of a few months, as the
Infant advances towards a state of
development in which a
more consistent and nutritious
food become necessary for
its support. A corresponding
change is observed to take
place. The bones of the face
gradually expand in their
dimensions; the jaws increase
in length depth & firmness
of structure. The gums become
more elevated and existing
on their upper edge. The
cavity of the mouth enlarges.

the muscles which moves the
jaws increase in size & vigor.
And in exact proportion to
the changes the infant manifest
increase powers of mastication.
and an increase tendency to
carry to its mouth every object
it can lay hold of; thus
evidently contributing to develope
still further the bones and
muscles concerned in mastication
About or soon after the sixth
month however a still more
remarkable change begins
to take place, and does

not terminate until the
child is about two years and
a half old - I allude to the
first Dentition - which
commences at about the
age of six & eight months -
I shall now name the mode
in which the Teeth pierce the
Gums. The two inferior incisors
first appear, followed by
the upper center incisors.
next upper lateral incisors.
then the lower lateral incisors,
the four anterior molars. the
four canines. and lastly

the four posterior molars.
The incisors usually appear
in rapid succession, so that
they are all in sight by the
age of one year. From the
age of one year to sixteen
months; the anterior molars
erupt the gums. From the
age of sixteen months to twenty-four
months the canines. and
from twenty-four to thirty
months the posterior molars.
I allude to the successive cutting
of the first set of teeth. a
process on the right management

of which the immediate
Society and future welfare
of the infant very closely depends
Being a natural process. teething
is not necessarily attended
with danger: and under
proper treatment, a healthy
child generally passes through
it without much actual
suffering. but in delicate
children it is often the
cause of much danger
and consequently of much
anxiety to the parents
and the possession of sound

views in regard to it is therefore important. As a general rule the organization will be found at every period of life to be exactly adapted to the wants of the individual. So the infant at the breast for example, teeth are denied simply because they would not only be useless but an encumbrance and would interfere with its sucking. At a later period however when the natural food of the infant is no longer

fluid but firm and
consistent. Teeth are given
because without their aid
such food could not be
broken down and formed
into a soft mass with the Saliva
to fit it for being easily
swallowed and digested -
In accordance with the
same principle, when
from weakness of Constitution
or the effect of disease, the
development of the system
goes on with unusual slowness,
and solid food is not at

soon required. the appearance
of the teeth is also delayed,
thus affording a proof that
weaning, and the change of
diet connected with it ought
to be regulated by the progress
of the organization, and not
merely by the number of
months which have elapsed
since the child was born.
In like manner the kind
of teeth provided by nature
always bears a direct relation
to the kind of food on
which the animal is intended

to live. For this reason we have two sets of teeth at different ages. In early youth when the appropiate food is comparatively soft and easily masticated the jaw is still on a smaller scale than in later life and contains only twenty teeth, (called the Milk or Temporary teeth) After the age of seven years these begin to fall out. and in proportion as the organization advances, and a more solid form of nourishment

becomes necessary. the jaw continues to enlarge and the first set of teeth is gradually replaced by a larger, stronger and a more massive set, called the permanent teeth. The first stage of teething is indicated by symtoms of general irritation in the mouth, and of some constitutional disturbance, the child becomes restless and the saliva begins to flow in quantities from the mouth. and as the last

uneasiness the infant cries, but in a little while smiles again. Tears and smiles thus succeed each other at intervals. The eyes and cheeks become red the appetite capricious and thirst frequently and considerable. Sleep is disturbed or interrupted by dreams, and a general expression of uneasiness pervades the frame. The gums which were at first unaltered begin to swell and become inflamed and painful. The child now

carries every thing to its
mouth. and is evidently
relieved by rubbing its
gums. The bowells at this
time are usually open. but
a certain degree of bowel complaint
is beneficial during teething
therefore its occurrence need
not excite any uneasiness.
after going on for a shorter
or longer time these symtoms
generally abate, and followed
by an interval of comfort
and repose, thus ends the
stage of dentition. The second

stage soon follows, now instead of the child carrying every thing to its mouth, he will often show great fear of any thing to touch it. The gums and mouth become burning hot. a pale or bright red spot will appear upon the gums, which will become very painful when pressed upon. the child is restless wishes to be layed down, and is no sooner down than he ~~wishes~~ is anxious to be up again, nothing pleases

him; at one moment he will ~~examine~~ demand the breast, and at the next will abruptly turn away from it. and with these appearences slight fever and bowel complaint are often combined. When once the teeth are fairly cut however all these symtoms will banish. I give this as the general rule, for many children well constituted and well brought up. pass through the period of teething with scarcely any disturbance or

excitement. But we sometimes meet with cases of difficult Dentition which require Medical treatment.

Treatment,

It is obvious that remedial measures in cases of difficult Dentition, must be threefold, namely, those directed to the gums, and those designed to relieve the derangements or diseases to which Dentition has given rise. Simple Mucilagines washes is good, when the mouth is hot & dry. (Such as Sassafras, Slippery Elm, Flaxseed &c.) When a tooth is protruding

A rubber ring should be given to the child to assist in cutting its teeth. When the gums are swollen hot tense & spongy an incision should be made over the teeth. When gums are painful over Molar teeth Crucial incision.

In nervous cases the Tepid Bath will be found to be beneficial

If there is diarrhoea, this should be controlled by proper remedies, so as to reduce the number of evacuations to two or three daily. &c

AN

Inaugural Dissertation

ON

[illegible]

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

[illegible]

Of

[illegible]

Session of 1869-70.

[illegible] Hemorrhage.

Hemorrhage, whether proceeding from accidental wounds [illegible] following the employment of the surgeon's knife, or [illegible] vessels from any part of the body in consequence of disease, is always a serious misfortune and often involves the safety of the patient's life by its quantity or continuance. In that [illegible] [illegible] from the first [illegible], which [illegible] [illegible], the blood may issue from the capillaries, veins, or arteries. Capillary hemorrhage [illegible] [illegible] [illegible] [illegible] [illegible] the hemorrhage [illegible] the blood have [illegible] [illegible] and the [illegible] [illegible] been broken down by [illegible] [illegible] [illegible] in the veins. Venous hemorrhage, ~~when from~~ small vessels usually quickly ceases by the [illegible] of their walls; if the veins are large or connected with the surrounding tissues that their walls cannot fall together, the hemorrhage will take place freely; the blood [illegible] of a dark [illegible]

[illegible] upon

[illegible] a ligature [illegible] round the limb above the part injured.

[illegible] immediately [illegible] supplying the blood, [illegible]

[illegible] which [illegible] larger [illegible]

[illegible] provided; in this case

the blood will flow from both ends of the vein.

Arterial hemorrhage is [illegible] supplies [illegible]

[illegible], unless the cavity [illegible] the surgeon's most

[illegible] attention [illegible]. The vessels may be par=

tially or completely divided, or the wound may be transverse

or longitudinal. [illegible] the blood escapes per saltum

[illegible] — that is in jets [illegible] with the

contraction of the heart [illegible] the blood [illegible]

[illegible] of the [illegible] the wound

[illegible] arrest it. [illegible]

the wound may [illegible], instead of escaping in jets

as it usually does, in consequence of its force being broken by

striking against their walls; [illegible]

being [illegible] it from venous blood. The wounds of the large arteries [illegible] the condition of the circulation in the [illegible] [illegible] depends upon the point at which the injury is inflicted if the wound is [illegible] [illegible] of one of the large arteries [illegible] branches pulsation cannot be felt in the [illegible] below [illegible] the trunks of these branches are [illegible] the wound the pulsation will be only diminished. In the former case the appearance [illegible] of the blood [illegible] and in the latter [illegible]. The blood [illegible] escapes from the [illegible] in a continuous stream as in the veins, but if the circulation is rapid and the [illegible] is undisturbed the stream may leap forth [illegible]. When an artery of large size is cut [illegible] the blood [illegible] and if not instantly checked the patient dies in a few seconds. The hemorrhage from small arteries is less copious, and after a certain quantity has escaped the patient faints and the the force of the circulation is diminished: the ends of the ves-[illegible] [illegible] amidst the [illegible]

[illegible] or by perforation of the vessel by a [illegible] of time: [illegible] in primary hemorrhage both ends of the artery should also be tied in secondary hemorrhage. The methods that have been suggested from time to time for arresting hemorrhage are quite numerous, but we will only consider those that are actually employed at the present day. 1st. Styptics are of two kinds - those acting mechanically, and those acting chemically: among the former are dossil scraped lint, fur, amadou, spiders web, and various absorbent powders, such as gum Arabic, &c; among the hemostatic styptics we find the various astringents - tannin, galls; matico; powdered alum, or a saturated solution of that substance; sulphates of iron, copper, and zinc; creosote in solution; persulphate of iron, about the best; nitrate of silver and many others. The chemical styptics act by constringing the tissues, and promoting the coagulation of blood: they can only be depended on in hemorrhage proceeding from the capillaries and small arteries. The hemostatic styptic of Pagliari is prepared as follows:

[illegible] applied, its [illegible] it will be found more efficient still; ice, pounded and inclosed in a [illegible] bladder, laid over the part, is [illegible] of [illegible] hemostatics; or a lump of ice may be put right up into the wound. The action of cold as a styptic is similar to that of the Astringents, and cannot be relied upon in bleeding from large vessels. Actual Cautery acts mechanically in sealing up the orifices of the blood-vessels, and the hemorrhage is liable to be renewed upon the eschar separating: the iron should only be brought to a black heat, so that it may also excite the adhesive inflammation in the parts as well as seal them. In secondary hemorrhage from a sloughing stump the actual cautery will be found a valuable resort. Pressure is often employed to check hemorrhage. Sometimes it is continued until the bleeding vessels are firmly sealed up, so that upon its removal the blood will not again flow; or the pressure may be a temporary expedient until other more reliable means are practiced to secure the blood-vessel. The pressure is made either with the fingers, or with specially constructed instruments called [illegible] and

fixed to the screw, with straps half an inch broad, sliding upon each other, and permitting the arc to be increased or diminished at pleasure. Each of these straps has attached at its extremity one of the pads; one is movable, the other fixed. The first of the two is set upon the steel strap at any angle by means of a joint and by a thumb screw. In applying the instrument the larger or fixed pad is placed upon that side of the limb opposite the artery upon which the smaller pad is made to act by the screw. A less complicated and more convenient instrument, is the compressor of Professor Hoey of Philadelphia, previously mentioned as being used in a hip amputation by Professor Pancoast. Gross describes it thus: It possesses several decided advantages over the ordinary tourniquet: first, in the facility of its application; secondly, in the amount of pressure which it is capable of exerting; thirdly, in its ready adaptation to the limbs of different dimensions; fourthly, in the circumstance that it makes pressure only at two points, - that is on the artery and at the spot immediately opposite to the artery;

and lastly, the facility with which it may be loosened or re-
moved at any stage of the operation. With a little modifica-
tion the instrument may easily be adapted to the femoral
artery, in its emergence from beneath Poupart's ligament, or even
to the external iliac just above this ligament. In amputa-
tions at hip-joint, this instrument can be used, and also to the
axillary artery, in disarticulation of the shoulder-joint. By a
reference to the cut in the first volume, page 507, fig. 161, it
will be seen that the instrument is composed of two bands
differing in the degree of their curvature, each united by a
screw, and regulated by a rachet. Each short blade is provi-
ded with a pad capable of being worked by a screw, and [illegible]
[illegible] upon the artery which it is intended to compress.
By this arrangement two tourniquets are produced: a large
one for the thigh, and a small one for the arm or the thigh
of a small subject. Compression is occasionally made on the
whole extent of the artery by [illegible] bandage [illegible] its
[illegible] the wound, and [illegible]

[illegible] of danger and of irritation from the [illegible] its retaining its position in the body. [illegible] useful in [illegible] other haemostatic means, but should never be left [illegible] for [illegible]. Direct pressure upon the mouth of the bleeding vessels by [illegible] the wound from which blood issues, is sometimes employed in haemorrhage following the operation of lithotomy. When the blood issues from the vessels of a bone, and other means fail to check it, the orifice upon the bone surface may be plugged with wax or a piece of soft wood. Ligature of the [illegible] inflamed [illegible] the middle artery of the femur, [illegible] the [illegible] dependent to arrest the bleeding. Direct pressure is however, painful, incites inflammation, and is fatal to union by first intention. It is therefore not to be adopted either provisionally or [illegible] to other haemostatic means when the latter can be used alone. Sometimes the sponges are saturated with some astringent before their application. Direct pressure is much utilized for small bleeding arteries, the dressing should not be re=

vessel, in which the hemorrhage is checked, for from one to four-
teen days, according to the size of the vessel. The ligature is made
of thread, and is a substitute for the actual cautery, the most
efficient means of arresting hemorrhage employed by surgeons. It
has been prepared from a variety of materials; silk and linen;
thread. Metallic wires inferior to these [illegible]. Ligatures of
carbonized animal substances, as cat-gut, deer-skin &c. but the
material most in use, possessing the most advantages, is well
twisted round white silk thread known under the name of sad-
dler's silk. When a thread is tied around an artery it divides
the inner and middle coats of the vessel, leaving the external
cellular coat entire in the loop. The blood in the artery
between the point where the ligature is tied and the first col-
lateral branch above coagulates, plastic matter is poured
out and in course of time the clot unites with the inner and
middle coats, and finally this portion of the vessel becomes con-
verted into a fibrous cord. The ligature by its pressure causes
ulceration of the cellular coats, and comes away from five to

[illegible] one drop or more sizes according to the size of the artery.
I have stated that the [illegible] with the ligature [illegible]
because it makes a division only of the two internal coats of the
artery. [illegible] the [illegible] is diseased and brit-
tle, the ligature must be larger, and the knot not tied so tight,
otherwise it will cut entirely through. [illegible] under these cir-
cumstances, [illegible] preferred [illegible] a flat thread, and even to place a
little compress between the ligature and the artery; the latter is un-
objectionable and has justly been abandoned. When the
bleeding vessels are completely divided, as in amputation, their
mouths [illegible] be drawn out a little with a tenaculum or the points
of the forceps: the former instrument being more convenient in
seizing smaller vessels. The adjoining [illegible] and [illegible] are
then to be separated, as far as possible, and the ligature applied.
When the artery has been wounded, the ligature is carried a-
round it with the instrument called an aneurism needle: the
vessel is [illegible] [illegible] then the needle is [illegible]
[illegible] [illegible] ends of the [illegible] [illegible]

[illegible], one of the threads should be cut close to the knot, and the other one brought out of the wound at its most depending point.

Wounded and bleeding arteries may also be ligated in the same manner as in cutting; [illegible] when they are found deep into the cavities, it has been recommended to pinch up the mar= gins of the wound and tie them with a thread, thus avoiding the dilatation of the external wound of the vessel. The ligature should always be cut, [illegible] of the knot, one above the wound and the other below, or [illegible] cut through one upon each of the [illegible]. In other cases where it is im= practicable to expose the point of injury either through the o= riginal wound, or an incision (made for the purpose) there is but one course left, namely, to put the ligature upon the trunk of the artery above the wound. Another plan of checking hem= orrhage by pressure, was practised by the ancient surgeons, and in latter times was laid aside until revived by Prof. [illegible] of Edinburgh. [illegible] to [illegible]. [illegible] valuable addi= tion to [illegible] in the hands of the

[illegible] the [illegible] application [illegible] may [illegible] become [illegible] in [illegible] the [illegible]. Prof. Simpson of Edinburgh has described the principal methods of applying it.

The first method consists of passing a needle through the flaps on each side of the wound so as to cross over and compress the mouth of the bleeding artery, or its tube, just in the same way as in fastening a flower in the lapel of our coat; we cross over and compress the stalk of it with the pin which fixes it, and with the same pin push the pin twice through the lapel. The compression of the needle, which is left exposed externally on the skin surface of the wound in the middle portion of it which bridges over and compresses the arterial tube at its bleeding mouth, on a line or two or more on the cardiac side of it; and if it were a matter of any moment, this part could not [illegible] be left bare for the needle could of course be passed a few lines deeper, between the vessel and the cut surface, and without emerging on that surface, more or less of both the extremities of the needle, namely its head and point, are exposed externally

[illegible] the other [illegible] of the [illegible] of the vessel.

The third method consists in entering the needle on one side of the artery, pushing it behind, causing its point to emerge on the opposite side of the vessel, passing a loop of [illegible] wire over its point, bringing the [illegible] over the track of the artery, and behind the stem of the eye-end of the needle [illegible] sufficiently to close the vessel, and fix it by a twist or half a twist around the needle. The wire with which the needle is threaded should be twisted, that it may be readily distinguished; by means of this twisted wire the needle can be pulled out after [illegible] and can be easily withdrawn. The fourth method, or that by a long [illegible] and a loop of passive iron wire, is a modification of the third, and differs from it [illegible] with a glass head, to facilitate its insertion, [illegible] the common sewing needle, threaded with [illegible]. [illegible] of [illegible] methods the third and fourth are the most [illegible]. The [illegible] part in each of [illegible] the same, but [illegible]

the [illegible] practice of using long pins, when convenient, from the [illegible] of them [illegible] they [illegible] more quickly introduced [illegible] [illegible] with the [illegible], and all wriggling and entanglement of [illegible] in [illegible] model. The fifth method, or that by the twist, may be varied according to the extent of rotation of the needle, whether a half or a quarter rotation: the operator has on the sensation of [illegible] a reliable proof that a sufficient degree of rotation has been given to the needle. This method may be practised with a long pin, or with a [illegible] needle, and [illegible] can be quickly done: but of all methods of acupressure, that by the twist with a long pin is the quickest. In acupressure by the twist to the extent of a half rotation of the needle, the first three movements given to the needle, are precisely the same as in the third method above described: namely, it is [illegible] on one side, [illegible] and [illegible] its point is made to emerge on the opposite side. [illegible] [illegible] turned [illegible] the [illegible], [illegible].

[illegible] the artery [illegible] the needle, [illegible]

and compressed. If at first [illegible] the first time he tried to [illegible]

[illegible] by the twist, a half rotation was given to the needle;

[illegible] the [illegible] sufficient to resist [illegible]

[illegible]hage: in other cases, a quarter rotation was only made [illegible]

[illegible]. The sixth method is that [illegible] and [illegible]

[illegible] consists in [illegible], causing the

point of the needle to emerge on the surface of the wound, giving

a quarter rotation to the needle, and fixing its point in the tissues

[illegible] the [illegible]. The [illegible] method consists in [illegible]

[illegible] through the [illegible] surface [illegible] to the

soft parts at some distance from the [illegible], [illegible]

[illegible] emerge near the vessel, [illegible] the

artery, and dipping the needle into the soft [illegible] the [illegible]

side of the vessel, and bringing out the point of the needle [illegible]

[illegible] through the [illegible]

the soft parts are twice transfixed, and the artery is compressed

[illegible] the bone and the middle portion of the needle

[illegible] the [illegible] [illegible] of [illegible] [illegible] of the middle [illegible] [illegible] the integument [illegible] vital action and [illegible]. [illegible], is insufficient [illegible] [illegible] is now abandoned except in its application to vessels of the smallest calibre. It consists in drawing out the mouth of the bleeding vessel with a pair of forceps about the [illegible] inch: a second pair of forceps is now used to seize the artery at right angles to its axis and at its point of emergence from the surface, to hold it firmly while the vessel is being twisted [illegible] by the first instrument made to revolve upon its axis. In this manner, by means of tightening of the forceps, the middle and inner coats of the artery are ruptured and twisted in a knot which is to be returned into the wound.

Jack L. Shock.

AN

Inaugural Dissertation

ON

Bronchitis

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

E. W. Speight

Of

North Carolina

Session of 1869 & 70. 18

Bronchitis 1

Inflamation seated in the lining membrane of the bronchial tubes constitutes the disease called Bronchitis

Inflamation of the bronchial mucous membrane may be acute or chronic according to the degree and duration of the inflamation.

The term acute bronchitis is applicable to every case of short duration and in this form is one of the most common diseases to which man is

Bronchitis 1

Inflamation seated in the lining membrane of the bronchial tubes constitutes the disease called Bronchitis

Inflamation of the bronchial mucous membrane may be acute or chronic according to the degree and duration of the inflamation.

The term acute bronchitis is applicable to every case of short duration and in this form is one of the most common diseases to which man is

liable; and is to be met with in all parts of the globe.

Inflamation affecting the large bronchi is usually mild in form scarcely ever proving fatal.

Bronchitis is most always a symmetrical disease affecting the tubes of both sides with about equal intensity

Chronic Bronchitis is a persistent inflamation of the lining membrane of the bronchial tubes and is generally the sequence of the acute variety of the disease

It is less frequent than acute

bronchitis; occurring much oftener in the aged, than during the early and middle periods of life.

The cause of primary bronchitis is supposed to be exposure to cold, which acts by interupting the eliminative functions of the skin, whereby an increased duty is thrown upon the pulmonary mucous membrane, and by inducing internal congestion.

A large proportion of the cases of bronchitis, however are not

traceable to any unusual exposure cold; therefore it has been concluded, that the disease is due to some morbific agent in the atmosphere; or to some special atmospheric change and not to exposure to cold.

This is, of course, to be inferred when the disease prevails as an epidemic; but, when cases are not numerous enough to constitute an epidemic, it is a matter of common observation that a greater or less number of persons are apt to be

simultaneously affected.

Bronchitis is sometimes caused by mechanical irration produced by inhalation of foreign substances into the air passages.

Transference of rheumatism in the rheumatic diathesis occasionally produces it, and it is one of the possible manifestations of tertiary syphilis.

It often occurs secondarily to, and as a complication of other diseases. In the acute form it is often seen as a complication of measles it also belongs to

the history of typhoid fever, but is rarely acute in connection with that disease.

The other diseases in connection with which it is seen are small pox, scarlet fever, hooping cough, asthma and acute inflamation of the lung pleura, pericardium and liver

It also affords us one of the first intimations of the deposition of tubercle in the lungs.

Bronchitis usually comes on with a little hoarseness followed by a moderate cough

and slight feeling of heat
or soreness in the chest.

The cough is at first dry and
painful, the secretion of mucous
being for a time scanty

The attack is rarely accom
panied by a distinct chill,
but chilly sensations, followed
by flashes of heat, are frequent
ly repeated during the career
of the disease. Cough is usually
among the first and soon
becomes one of the most prom
inent symtoms. It is at the
commencement short and dry

producing a sensation of scraping and tearing behind the sternum. It has some tendency to occur in paroxysm, especially after waking in the morning, when a little viscid mucous is discharged with temporary relief. Deep inspirations or breathing cold air excite acts of coughing which appear in paroxysm. and consist of a deep inspiration followed by a series of expiratory efforts. The patient feels as if relief would be afforded by a more

abundant secretion and de-
sires to the cough loosened.
After a duration of from a
few hours to several days the
expectoration becomes more
abundant and consist of a
transparent, ropy, and often
frothy mucous, sometimes streak-
ed with blood which is thrown
up with painful coughing.
The expectorated matter grad-
ually increases in quantity
and consistence, becoming
opague and white and finally
yellowish or greenish

Along with the change in the mucous secretions there is usually an amelioration of the other symptoms. The cough is easier the soreness and tension are diminished and the fever abates. At lenght the disease gives way; the expectoration becomes free and easy the skin becomes moist; the urine increased in quantity. The fever entirely subsides and the patient returns gradually to health but often with a slight cough which remains for a con-

siderable time. The attack varies in duration from six to ten days, though it sometimes runs on from two to three weeks; and may assume the chronic form.

Acute Bronchitis is to be discriminated from pleuritis and pneumonitis, more especially the latter. The absence of lancinating pain, and the pain which is felt being substernal, the presence of more or less expectoration which is not rusty, but either devoid of blood or containing

it in the form of streaks, absence of accelerated breathing and dispnoea, absence of circumscribed flush of the cheeks are points chiefly negative and not sufficient for a positive diagnosis in all cases, because the symptoms belonging to pneumonitis and pluritis which are wanting in bronchitis are by no means uniformly present in all cases of the two former diseases.

Percussion elicits the resonance of health. Auscultation in severe bronchitis reveals the

presence of rales in all parts of the chest, sibilant and sonorous sparingly, coarse mucous and sub crepitant more abundantly.

Ordinary acute bronchitis not associated with other affections, is a dangerous disease only when occuring in the young, aged and feeble.

The danger in these classes of patients arises from the want of power to throw off the accumulation of the products of inflamation within

the bronchial tubes.

A mild attack of Bronchitis, it is said by some authorities, may be cut short on the appearance of coryza by giving at bedtime a warm mustard footbath and a full opiate with warm acidulated drinks to be followed in the morning by a saline cathartic. If this treatment fails to abort the attack and the disease becomes established, no very active measures in regard to treatment are called for

The temperature of the room of the patient should be kept at from 65° to 70° F. Taking care to prevent

all drafts of air the, the patient being kept well covered in bed. The inhalation of warm spray affords relief and promotes expectoration. Bloodletting is rarely called for. Saline cathartics and reduced diet generally sufficing

If however in a plethoric patient the fever be high and the dyspnoea great with a full strong pulse, a few ounces of blood may be taken during the first stages of the disease. The stimulating expectorants are not called for in the first stage in as much as they excite the bronchial mucous

membrane and thereby tend to increase the inflammation. If pain and soreness of the chest be present during the first stage, sinapisms and stimulating liniments are beneficial.

When the second stage has become established emetics are necessary for children to aid them in throwing off the accumulating secretion.

If the secretion is excessive and long continued, tonics and astringents should be given.

Chlorate of potassa is regarded as an excellent remedy in both stages of the disease.

AN

Inaugural Dissertation

ON

Chloroform by inhalation

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Lat. B. Mobberly

Of

Fredk County M.d.

Session of 1869. & 70. 18

Chloroform.

I will now try and give a short account of Chloroform its administration and action by inhalation - We have a great many modes of producing Chloroform which I will not have room or time to mention The one which we term of final - is first to obtain Chloroform from the distillation of alcohol with chloride of lime then of this commercial Chloroform take one hundred -

and two troy ounces, stronger alcohol six fluid ounces, carbonate Potassa two troy ounces, add the acid to the chloroform and shake them together occasionally during twenty four hours separate the lighter liquid from the heavier and mix it with the stronger alcohol then add the carbonate Potassa previously heated to redness and rubbed while warm into powder, agitate the mixture thoroughly and by means of a water-bath

distil to dryness from a retort furnished with a condenser. The rationale of Chloroform has not yet been well made out. If we consider alcohol a Hydrate of Ethylen $C^4 H^4 + 2 H.O.$ it may be presumed to be generated by the removal from the Ethyle of 2 eqs of Carbon and the substitution of 3 eqs of Chlorine for 3 of Hydrogen Thus $C^4 H^4 - C^2 H^3 + Cl^3 = C^2 H. Cl^3$. Chloroform is liable to contain Ether & Alcohol both of which lower

its Specific gravity - therefore we may look upon the Specific gravity of Chloroform as one of the tests of its purity. There are many modes of testing Chloroform (we must first take into consideration the Character of the adulterations we may divide them into 3 kinds 1. Those such as Alcohol and Ether which reduce its Specific gravity. 2. Those Methyl Compounds which result from methylic modes of rectified Spirit

being used in the manufacture
3. The products of decomposition
of the first we may use as
before mentioned &c. :-
gravity which should never
be less than 1.48. Sodium
thrown into Chloroform should
remain unchanged. Alcohol
will be shown by adding a
crystal or two of Chromic-
acid which will produce the
green ox. of Chromium. The
best mode of applying this
test is to make a solution of
2 Parts of Bichromate of Potash

in one ounce of strong sulphuric acid, but a little of this in a test tube and add an equal quantity of the suspected chloroform shake for a moment- if the proportion of alcohol is considerable the change will be instantaneous from yellow to green- if only a small quantity it will require some minutes. This is the most delicate test showing alcohol in proportion of 2½ grains to the ounce & there will be shown by the same tests as alcohol and may be-

recognized by its smell. The Methyl compounds the most dangerous of all may be detected in various ways. Very strong Sulph Acid becomes black when mixed with Chloroform containing Fluor. The Fluor division is the most important because the Chlorine products of the decomposition of Chloroform constitute its gravest impurities. Time, Air, and Light, act in various ways producing different compounds, such as Hydro Chlorocarbons, Hydro Chlor. Acid

and free chlorine all of which are dangerous to be inhaled. Chloride of Elayle may be recognized by addition of Liq. Potassa which developes the nauseous odor of Chloride of acelayle, Hydrochloric Acid may be detected by litmus paper and Nit Silver, Hypochlorus Acid by its smell. Free Chlorine may be generally recognized by its odor or by its bleaching litmus. After giving a brief account of the manufacture of Chloroform and detection of

properties. I will now go back to the time of discovery.
Chloroform was discovered by Dr Samuel Guthrie of Sackets Harbor of New York in 1831. and about the same time by Soubeiran in France and Liebig in Germany.
Guthrie obtained it by distillation of Chlorinated lime and alcohol and rectifying first from an excess of lime and the carbonate of potash.
In 1832 Dr Guthrie by using sulph acid in rectifying—

and the Carbonate Potassa
for any excess of acid re-
maining. Dr Davies pure Chlo-
roform. He thought it identi-
-cal with the Dutch liquid
which it resembles and he
had found an easy and
cheap process for making
it - under this impression
he called it in his commu-
nications Chloric Ether one
of the names by which the Dutch
liquid or Bichloride of Ethyle
is designated. He was induced
to make the preparation from

noticing in Prof Lillimans Chemistry a refference to the Wuch Liquice as an agreeable diffusible Stimulant when properly diluted with Alcohol and water. Previous to the year 1831 we notice that the ancients were in the habit of using different modes of alleviating pain their object was to produce profound sleep or [illegible] and by that, retieve in a measure the pain attending the operation. The Chinese Surgeons-

used Indian Hemp for the same purpose. There is no doubt that the medicine was administered by the stomach - but in one account of its effects sleep was produced in a few minutes which makes it probable that it was ignited and the fumes inhaled, Inhalation of narcotic vapors was practiced at an early age - the Ancients used to breathe the fumes of Indian Hemp just as the Chinese do opium

As far back as the thirteenth century Albertus Magnus probably knew of the anesthetic power of ether as he gives a formula for its preparation Humphrey Davy found that the inhalation of nitrous oxide mitigated the suffering of a wisdom tooth and he threw out the hint that it might answer for destroying physical pain - At the same time the vapor of ether was used by Pearson & Thornton in the treatment of diseases of the

chest. In France 1813 an ap-
paratus for the inhalation
of ether vapor was figured
No general anesthetic effect
however was known. Humphry
Davys suggestion was not acted
upon until 1844 when
Horrace Wells the American
Dentist used Nitrous oxide
successfully in several cases
inaugurating a new era in tooth
pulling, but he met with an
accident which of course
ran him out of practice
but the idea took deeply into

the mind of another, Morton, Wells's pupils, also a Dr Jackson and through them the use of Ether was made known. On the memorable evening of Nov 4th 1847. Wm Thompson, Keith, & Duncan sat each with a tumbler in hand and a napkin in the tumbler - Chloroform was poured on each napkin and all patiently inhaled and waited for something to turn up - after a probation, of time comparatively

short W. Simpson became convinced that something had turned up for he heard W. Duncan moving and W. Keith kicking about in an elegant manner, all these effects had been made manifest in a very short time so all concluded that Chloroform was much more agreeable than Ether In a short time Chloroform was administered to a highland boy and a diseased portion of bone from the

Forearm was removed
absolutely without pain.
The ordinary point which
makes Chloroform of such
value for inhalation is its
extreme volatility— It evap-
orates at all temperatures
Air: at 40° Far, can retain
six per cent of Chloroform
vapor, at 60° 12 per, cent
The notions which are current
concerning Chloroform and its
effects are in a great degree
strange and erroneous,
Among the people there is—

much perplexity in [illegible]
based upon false reasoning
and much ignorance even
in regard to the agent its-
self — many people do not
know whether it is fluid
or solid) — but I think the
most widely spread error
is that concerning its in-
halation [illegible] [illegible]. It is
supposed [illegible] to be neces-
sary to hold it over the
nose and mouth. If a pa-
tient and insensibility is
immediately produced) —

Its danger has been often
magnified and often esti-
mated too lightly — but nearly
always it is supposed to be
hurtful in cases of disease
of the heart, which is a
very erroneous idea, if the
chloroform be pure and
properly administered.
Chloroform to be properly
administered should be
well diluted with air
especially at the commence-
ment of the process.
Experiments have shown that

no danger attends Chloroform
when sufficient air is allow-
ed to be inhaled with it—
it produces no irritation
whatever. You may take
a piece of pasteboard shape
it like a funnel with a
hole about the size of a
silver dollar in the small
end. Then line the inside
with cotton or wool and
cover this with a piece of
muslin the cut side must
be covered with cloth
as it is to prevent evaporation

the hole in the small end must be filled by a piece of sponge which will contain the chloroform to be administered, The symptoms produced by chloroform gradually administered are those of exhilaration such as those from whiskey wine &c. the pulse beats with an increased quickness and at first with an increased force — this just at the commencement may be influenced by alarm but [illegible]

usually very quietly, and it cannot be wholly so, for the rule is universal in the true as in the time of trance and in all animals the circulation is increased under chloroform. There is generally a bright expression of face the tendency is usually to cheerfulness — and while unconsciousness is yet unaffected there is frequently an inclination to laughter. After the lapse of about a minute the true action of Chloroform

as an anesthetic, commences, the use of the term anesthetic is sometimes i.e. considered. An anesthetic is a substance capable of abolishing the function of sensation - but we know of no agent acting upon the whole sensation capable of accomplishing this, and only this. True anesthetics are local anesthetics, Chloroform administered causes not only loss of sensation but also loss of motion -

of perception thought con-
sciousness and many of the
manifold ctivities of the ner-
vous system. The distinction
sleep therefore commences the
narcosis. The sense becomes
affected — sounds are exag-
gerated in their intensity &c.
and then we often find an
exhilarating effect at this
time characterized by laughing
talking &c. but it is all like
a dream to them the past life
may be recalled and partial-
ly told — not all are effected

in this way. The sensibility of the surfaces do not disappear at the same time the conjunctiva retains sensibility after the skin has lost it - and the sensitive portion of ~~nails~~ skin in which the nails are imbedded, are the last to lose sensibility. Almost at the same time is loss of sensation and motion - amnesia - a progressive debility ending in total extinction of power just as sensation is being -

abolished we have a tremor with some, violent and others gentle. Few patients are under the influence of chloroform in less than four minutes although it acts much sooner on some. Much oftener it will take longer. There may often seem to be pain when there is none, we must not allow our sympathies to misinterpret signs, Chloroform narcosis may be divided into three stages! Perversion

of consciousness 2. abolition
of consciousness 3. muscular
relaxation. The recovery
from the effects of Chloroform
is generally simple and
uncomplicated & exhilirating
& awakening from a deep
sleep. There is a feeling
of weariness and a desire
to be left alone. If the patient
is often shortly before the administration
of Chloroform she or he
will suffer from nausea,
usually, there is nausea under
any circumstances - which -

can invariably be controlled
by Bromid. Pot. grains XX
in water. Patients should
not eat anything for at least
[illegible] hours before the ad-
ministration of Chloroform
[illegible] should always be
[illegible] nothing to embarrass
respiration — And to a care-
ful administration with
pure Chloroform no danger
may be apprehended what-
ever.

AN

Inaugural Dissertation

ON

[illegible]

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

John L. [illegible]

Of

Maryland

Session of 18[illegible]

[illegible]

[illegible] a deposit of [illegible]

[illegible] which

[illegible] of that part together

[illegible] their distention so that

the penis is turned with blood

[illegible] bent at one part and fear-

[illegible] painful, indeed it is sometimes

[illegible] extremely violent that author

AN

Inaugural Dissertation

ON

Typhoid Fe[illegible]

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

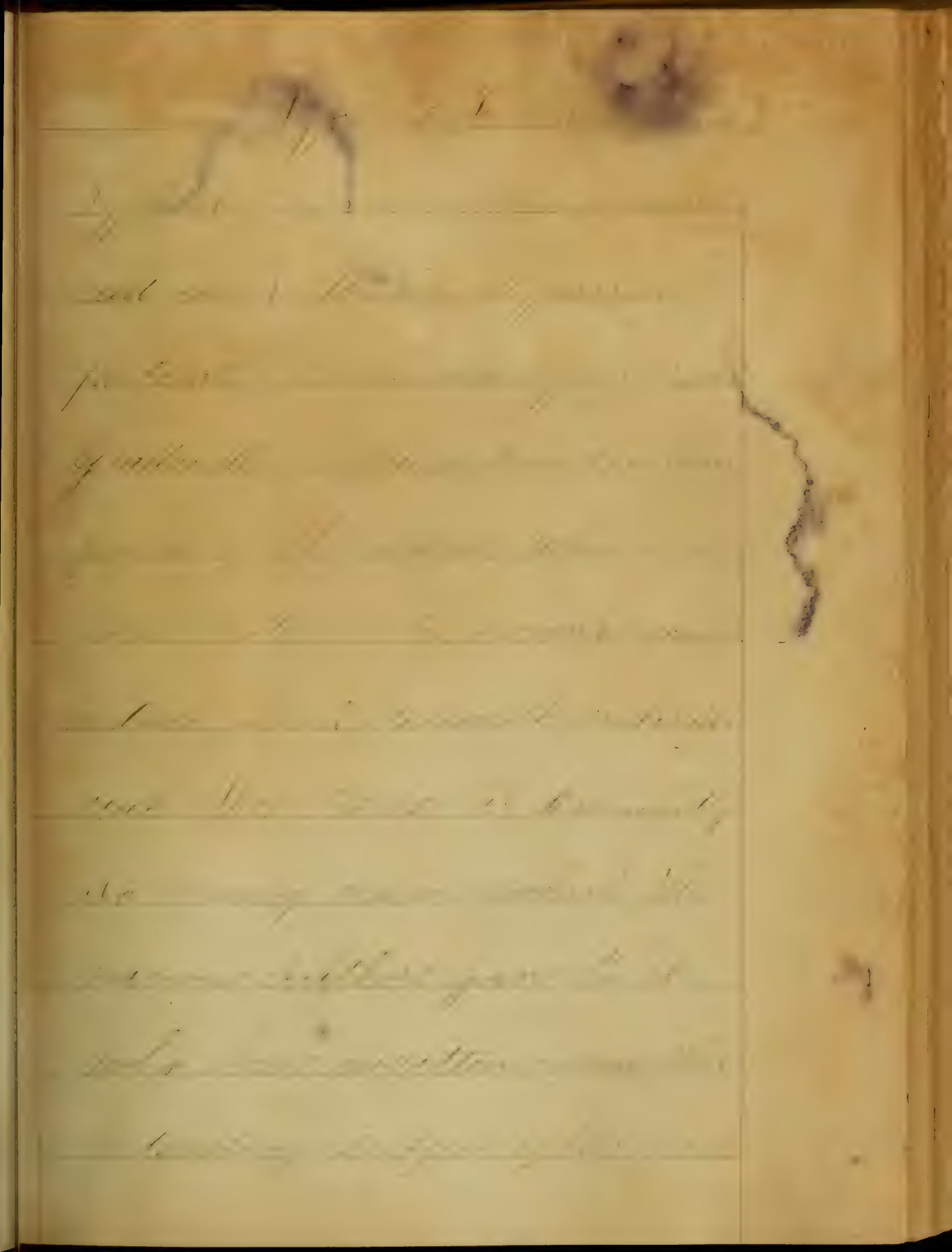
By

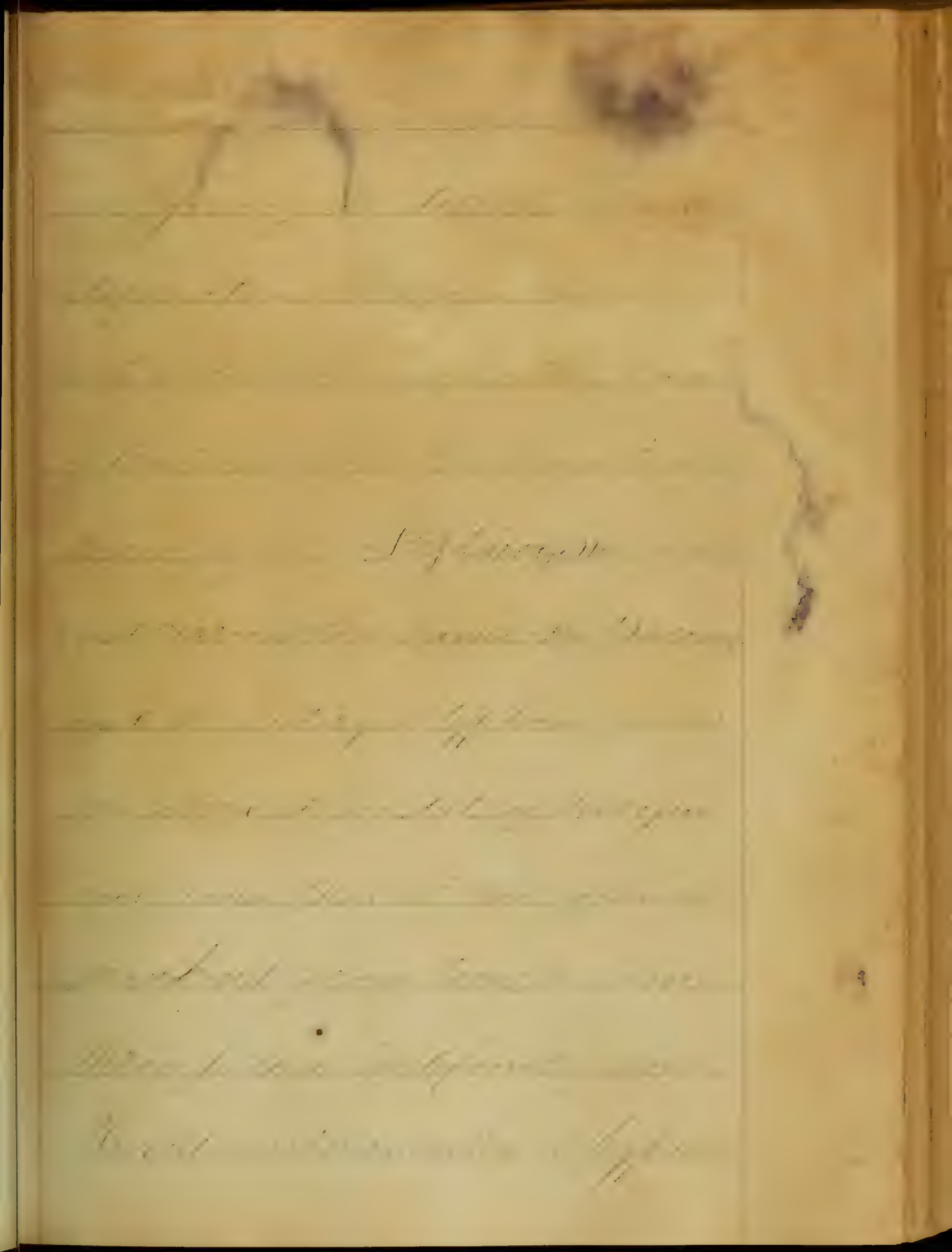
[illegible]

Of

[illegible]

Session of 187





AN

Inaugural Dissertation

ON

[illegible] Physiological action & Ther. Application

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

John Morgan McKown

Of

Berkeley County, West Virginia.

Session of 1869 & 70

Medicine can lay claim to no distinctive im-
[illegible] Like other sciences, it has its peculiar
[illegible] are superseded by-
[illegible] place to the [illegible], so called, of the
[illegible] shoved aside to
[illegible] speculations as
[illegible] subsequent [illegible] his place in the
[illegible] The [illegible], however, is
sometimes reverse. The investigators of one age not-
ingrequently [illegible] the feet of the philosophers
of a [illegible], to revive their traditions, and to re-
establish their practices. Just now we are in one of
those transition periods. The indiscriminate and routine
stimulating treatment of Todd and Bowman, of the
seventeenth and of the last century, and which fell, as

[illegible] it [illegible]

[illegible], is now being revived; with, let us

[illegible] its advocates, a juster appreciation

[illegible] disease and a more enlight-

[illegible] the physiological

[illegible] original authors

[illegible] the articles which are

[illegible] practice of this stimula-

tion [illegible] a prominent place, not

only [illegible] striking effects observed

to follow on its administration, but because just

now it is claiming the attention of many scientific en-

quirers as to the modus opperandi of its action.

And it is an article of the Materia Medica of pecu-

liar interest to the student of medicine, since, in

his future professional career, he must either avoid

[illegible] in the ranks of its advocates, — using it, however, [illegible] and in accordance with the more enlight- [illegible] now obtains as to its therapeutic indi- [illegible] it as a questionable, if [illegible] an agent.

[illegible] preconceived pred- [illegible] its efficiency as [illegible] myself prepared to be [illegible] cited in its behalf, [illegible] for or against its use as such an agent.

It would be impossible, of course, within the compass of a thesis such as a student of medicine in the intervals of study can find leisure to prepare, to enter into anything like an elaborate treatise on any subject embraced in the curriculum of his studies; and, therefore, in submitting to your inspection this paper on alcohol, one

[illegible]

[illegible] with [illegible] survey of

[illegible] which have been advanced by recent exper-

[illegible] history of alcohol may

[illegible] product of vege-

[illegible] is the result of a

[illegible] are three essentials

[illegible] a certain temperature,

[illegible] 80° F.; the [illegible]; the presence of a

[illegible] substance (usually yeast); and also of grape

sugar, or substances convertible into grape sugar.

There are also three steps, or stages, in the preparation of pure

alcohol. First stage, or that of vinous fermentation:-

Sugar dissolved in water, and mixed with a nitrogenous

matter (ferment), undergoes a vinous fermentation and

[illegible]

[illegible] stage of the proceeds, is either wine, beer, &c, according [illegible] used, and consists of water, alcohol, coloring [illegible] thic ~~acid~~ ether, volatile oil (ac- [illegible] [illegible]ious acids and salts.

[illegible] The liquid which re- [illegible] this stage is subjected [illegible] [illegible]cond liquid termed [illegible] spirit, [illegible]. The particular name by [illegible], is determined by the kind of [illegible] liquid we employ in the proceeds: grape wine yields [illegible] brandy (Spiritus vini Gallici); if the liquid be a fermented infusion of grain, Corn Spirit (Spiritus Frumenti), &c.

Third stage, or that of Rectification. The object of this stage is to obtain pure alcohol. This result is only accomplished after repeated distillations, the distiller using pearlash

* [illegible] the use of the [illegible] which would [illegible]

each successive distillation. [illegible] from the liquid

[illegible] obtained from this stage, the process, Rectified

[illegible] The elementary constituents

[illegible] hydrogen, and oxygen, and

[illegible] $C_4 H_6 O_2$; or, regarded

[illegible] better written C_4H_5O+HO.

[illegible] has a sp. gr. of 0.941;

[illegible] U.S.P. a sp. gr. of 0.835;

[illegible] that of absolute alcohol is only 0.794.

Brandy, Gin, Whiskey, Arrack, &c, contain from 45 to 54 per cent of alcohol.

Having completed this summary of the chemical and pharmaceutical history of alcohol, I come at once more particularly to the consideration of what I designed to embrace in this thesis, — namely, its physiological action

[illegible] application. And I do not [illegible] that I could [illegible] what I desire to say on this subject, as points to [illegible] possibly, I may have to refer hereafter, than to promise [illegible] which I find in my notes on Prof. [illegible] lectures [illegible] Neurotics and Stimulants. [illegible] the general [illegible] which Prof. Chew gave to the class at the [illegible] one Principal Division [illegible] under the name of Neurotics: this is further sub[illegible] into Stimulants, Narcotics, and Sedatives, and may [illegible] be conveniently expressed:

Neurotics { Stimulants. Narcotics. Sedatives.

In treating of Neurotics in general, Prof. Chew holds this language, as I have him reported: "These are agents which act immediately; and their action differs, ordinarily, from

— [illegible] ... [illegible] [illegible] or Neurotics by being [illegible] [illegible]

[illegible] although they may, indeed, and not infrequently they do, [illegible] some permanent effect on the organism by removing [illegible] specific [illegible] [illegible]. Their essential physiological [illegible] are [illegible] [illegible] but they certainly at times [illegible] [illegible] effects. [illegible] the parallel between [illegible] [illegible] [illegible] further: "We [illegible] [illegible] Neurotics [illegible] the cause of disease; we direct Neurotics against the symptoms of disease. For example, in neuralgia, depending upon a malarious impression, [illegible] give quinine and iron to remove the cause; while we give opium and belladonna to allay the pain at once."

In regard to their physiological action Prof. Chew observes again: "Neurotics act upon the nerves;- either by absorption into the circulation and thus carried directly to the nervous centres on which they make their impression; or, by immediate

[illegible] may act directly upon the sentient extremities of nerves [illegible] in a curious tortue. Again, some of the Neurotics ex- [illegible] and increase nervous action; while, on the other hand, others [illegible] such action. Some Neurotics also lessen sensibility:- [illegible] by acting [illegible] centres, as in the case of opium [illegible] others immediately upon the nerve [illegible] apply them to the [illegible] affected."

Passing on from the [illegible] of Neurotics, one of the gener- [illegible] divisions of his [illegible] to take up in detail the discussion of the sub-divisions of that class, I find the following in refer- ence to stimulants: "Stimulants are agents which increase the manifestations of the vital activities of the organism when these are deficient; and these evidences of the increase of the vital activity are principally observed in the circulatory and nervous systems. We seek, by the influence of stimulants,

[illegible] the hearts action, and also to increase the natural [illegible] of hearts in general. Mere increase in the frequency of [illegible]lse, however, does not indicate stimulation. Indeed the con-[illegible]se of this [illegible] frequent pulse may indicate the [illegible] of stim[illegible] spasmodic action by any [illegible] brain: I.E. poisoning [illegible] hydrocyanic [illegible] hemorrhage may each oc-[illegible] conditions, in [illegible] conditions the nervous centres [illegible] very much depressed. [illegible] prevalent error has been to [illegible] that increa[illegible] a gland indicated exalted [illegible] of that gland. That indefatigable physiologist, Claude Bernard, in one of his experiments, cut the nerves of the salivary gland, or of one of the salivary glands, and had an augmented secretion from that gland; and indeed we may easily imagine a condition in which the actual secretion of a gland would be lessened by the administration of a stimulant."

[illegible] ...ting the subject at [illegible] length, Prof. [illegible]

[illegible] sums up: "The design, by the administration of stimulants,

[illegible] ... since the increased frequency of the pulse; to abate and aid in

the removal of its [illegible] such increased or abnormal secre-

[illegible]; to [illegible] system. Stimulants, there-

[illegible] ...ity, increase depressed

...ity, and decrease [illegible] ones." This includes, I

[illegible], all that [illegible] to be said, in this connection,

in reference to the [illegible], both of Anaesthetics and of

stimulants as one of the anaesthetic agents.

[illegible] in leaving the above summary of the definition and action

of Anaesthetics and Stimulants in general, to take up now the

more particular consideration of alcohol as one of the stimulants,

I would call attention, in passing, to several interesting points

connected with the visible effects of alcohol upon the system, either

when applied to the cutaneous surface or given by the mouth.

[illegible] is applied to the skin, there will be a sense of coldness, [illegible] to the abstraction of caloric or, which is the more probable explan-[illegible], in consequence of its rapid evaporation. When applied to either [illegible]taneous or mucous surfaces, it harvens them, - both by coagulating [illegible] albumen and [illegible] the water which those tissues contain; [illegible] water, uniting with it in [illegible] proportions. [illegible] quantity, there [illegible] generally result a [illegible] stimulation; when the quantity is much increased, the [illegible]xication will supervene. And I would remark, [illegible] this condition, that the third stage of alcoholic intoxication, attended with more or less profound tor-por, demands prompt medical treatment. This stage is induced by the great quantity of the alcohol imbibed, either in one draught or in frequently repeated imbibitions. In this stage of intoxication the face is usually flushed, and, later, as the torpor becomes more profound, and in which stage death is very

[illegible] result, the [illegible] become [illegible] the [illegible] of [illegible] can not be regarded as absolutely indicative of death of the individual. The temperature of the head is elevated; the pulse is qui[illegible] the earlier stage, but as the effects of the poison [illegible] it grows slow, and, fi[illegible] [illegible] extinct. The breathing stertorous [illegible] in arousing the patient, a fe[illegible] dilated pupils, and cold extremities, are [illegible] symptoms. Death from alcoholic poisoning [illegible] to non-aeration of the [illegible] in the brain. So much for general considerations.

I come now to consider certain interesting, and, in a therapeutical point of view, very important properties of which alcohol seems to be possessed as a therapeutic agent. And first, its special stimulant effect seems to be directed to the brain; and this action is accounted for on the supposition

[illegible] affinity which it is [illegible] for that organ.

It does exercise a most decided influence over the intellectual [illegible]tions, can not be doubted by any one who is at all familiar with the phenomena which usually attend on its use — or, more properly, I regret to be [illegible] abuse. Another property, and [illegible] important [illegible] which we may justly [illegible] as belonging to [illegible] special tendency to affect the [illegible]vous system. The [illegible] property, on its therapeutic aspect, can not will be [illegible]. That it does possess it, in a most marked and [illegible] degree, is clearly evidenced by the decided influence which we observe to be exerted in those cases in which it is administered with a definite and well-defined purpose to be attained. — We give it to allay pain, to quiet delirium, to promote sleep, or to prevent convulsions; and the manifestation of its action is clear and unmistakable.

Another property, and perhaps the most important of all the

[illegible] is which is now universally [illegible] belong to alcohol, is [illegible] when taken into the system [illegible] the place of food. [illegible] point in the history of alcohol seems to be fully established. By a number of [illegible] instituted among a community of artesans, in Germany [illegible] Prof. Shew refered when discussing this [illegible] of alcohol [illegible] those artesans who used [illegible], habit[illegible] than those who [illegible] from [illegible] experiments it was also ascertained, that [illegible], bodily vigor could be sustained with a [illegible] amount of food.

Prof. Shew also cited to the Class, as an example strikingly in proof of this position, the case which fell under the observation of Doctor Austie. The case was that of an old soldier who, for twenty years, had lived on a daily allowance of a bottle of Gin and a small piece of bread. The establishment of this point in the action which alcohol exerts over the economy,

... is as ~~with~~ with one of the surest ... ... visible indications for ... alcoholic employment.

... brings me to a very interesting point of my present inquiry, namely, the consideration of some of the various theories which have been advanced to explain this action. That there is a continual ... of oxygen ... which process the tissues give up their effete ... and hydrogen - and receive oxygen, the result ... is the production and elimination of carbonic acid ... seems to be clearly made out. Observers were ... disposed to assume that in this process could be found the philosophical explanation of one of the most important physiological effects of alcohol. It was contended that the superabundance of carbon and hydrogen contained in the alcohol supplied these materials to the oxygen of the blood and tissues, thus lightening them of a very important and essential office, - thereby restrain-

[illegible] ate, and assisting, very [illegible] process of oxydation, [illegible] process is adjudged to be essential to the maintenance of life.

[illegible] there are serious objections to this theory.

1st: It has been ascertained that, even with the free use of [illegible] acid gas is eliminated from [illegible] use is abstained from.

2d: [illegible] is excreted through the [illegible] the fecal evacuations.

The establishment of these two points would seem to invalidate the theory that alcohol assists oxydation.

A second theory, and the only one to which I consider it necessary to advert – the theory which Prof. Shew seems inclined to favour, is, that alcohol has the power of absolutely restraining oxydation, and consequently of retarding waste; which last, however, is only the effect, in the explanation of which

[illegible] is invoked. With this [illegible] ing power which Prof. Chew invests [illegible] that it ~~[illegible]~~ an-[illegible]tedly does furnish, also, a certain proportion of carbon and [illegible]rogen to the system, and in this way assists in sustaining the powers under the [illegible] of food. The precise mode in which this rest[illegible] hindering power of limiting oxydation [illegible] is exerted, Prof. Chew states is not fully [illegible]. A[illegible] that it is probably [illegible] virtue of one of these [illegible] agencies constantly at work within the organism, but whose nature is not fully understood.

An explanation of its possible action in this regard, and which I do not remember to have seen advanced elsewhere, has suggested itself to my mind, - which I will now offer.

The proposition is this: Alcohol possesses, in a remarkable degree, the property of preserving animal tissues when such tissues are immersed in it. We call this known property

[illegible] into requisition in [illegible] anatomical [illegible] which we make for our [illegible] might not this same [illegible]ty of alcohol be invoked in [illegible] of its action in the [illegible]ing organism, in preserving the tissues, that we concede it ex[illegible]ts mechanic[illegible] with which it is brought into [illegible]tact with [illegible] [illegible]nts waste in the living [illegible]ganism by [illegible] that this result is [illegible]ected, not so [illegible] [illegible]olute restraining power [illegible] which it is possessed, [illegible], [illegible] rather by an immediate im[illegible] which it exercises over the tissues in the organism with which it is brought into contact — by its antiseptic — or, more properly, its preservative properties. — In a word that its action within the organism is identical, in nature at least, to what it is without.

But right here we are met by an apparent difficulty. It may be urged, with considerable plausibility I must confess, that

[illegible] preserves animal tissues by [illegible] the albumen of those [illegible] and that the exercise, to any [illegible] of this function [illegible] the organism, would be [illegible] with the maintenance [illegible] life. I think that the objection is rather apparent than real. In the first place, it is [illegible] that alcohol is absorbed into the [illegible], and [illegible] to every part of the body. It has been found in [illegible] the brain of drunkards after [illegible], and found in [illegible] quantity to be ignited. Even [illegible] that in the [illegible] it must necessarily be [illegible] diluted with [illegible] such others fluids as may meet it in the body; yet it is unquestionably alcohol, and [illegible] most probably exerts over the tissues with which it comes into contact some of its well-established properties. We must either admit this, or else we must deny its existence as alcohol in the organism altogether.

Again, I am not insensible that its influence in pre-

[illegible] may be very mate[illegible] [illegible] vital activity of [illegible] themselves, but I hard[illegible] [illegible]ce, however much [illegible]tance we may be disposed to [illegible] [illegible]e invalidate the [illegible]sition which I have submitted. Indeed, I call this very vital [illegible] into requisi[illegible] [illegible]t that the modifying influence [illegible] it is supposed [illegible] the direction of a conservative [illegible] — that it stands [illegible] to guard what would other- [illegible] ~~otherwise~~, under different conditions, in the inanimate [illegible], where this sentinel did not exist, be a distructive process; that it permits the preservative properties of alcohol to be exerted to a certain extent, and only to a certain extent, stopping short, ordinarily, — at least while the vital activities preserve their integrity and power of resistance to this property of alcohol — of a distructive hardening of the tissues.

I will go a step further, and hazard the conjecture, that, in those cases in which large quantities of alcohol have been

[illegible] it destroys life, not so [illegible] supposed,

[illegible] aeration of bl[illegible] overpowering,

[illegible]ly, the vital functions w[illegible] checks to its dis-

[illegible] processes, it is thus allowed to act freely and unreserv-

[illegible] upon the tiss[illegible], [illegible] them unfit for the perform-

[illegible] their [illegible]. The ultimate nature

[illegible] change I [illegible] upon; how far the

[illegible] vital activities [illegible] in the organism — or, in

[illegible] words, the powe[illegible] whatever they may be, hold

this destructive agency in check; the precise point where the

[illegible] limit of endurance, compatible with life, is reached,

and the peculiar anatomical or pathological changes

which supervene when once this point has been passed:

how far, in turn, these changes themselves may be modified

or even determined by the immediate pre-existing con-

dition of animal life — upon none of these will I venture

[illegible] late, but their investi[illegible] some impo[illegible]

[illegible] upon the whole subject of the physiological action [illegible]. And I think it exceedingly probable that this [illegible], whatever it maybe, is exercised primarily, and indeed [illegible], upon the [illegible]. I find in my notes on the [illegible]gical anatomy of [illegible] poisoning that there are [illegible] no distinctive [illegible] inflammation only.

I do not wish, [illegible] stood as insisting that [illegible] destroys life [illegible] manner which I have indicated, but [illegible] degree of probability to my mind seems to attend this explanation of its action in that regard.

To sum up, then, in regard to the physiological action of [illegible] as respects one of its distinguishing characteristics. And first, we premise that it actually can take the place of food, and that it absolutely does restrain waste. I suggest, in explanation of this remarkable property,

[illegible] action in this regard is in [illegible] it [illegible] conservative [illegible] over the blood and tissues, [illegible] in this action, and [illegible] and conservatively, [illegible] residing in [illegible] organism. In hazarding [illegible] opinion as to the physiological action of alcohol, I wish to be understood as limited [illegible] in the main, [illegible] property which it is known to possess, namely, its power of taking the place of food [illegible] of retarding waste.

The attention of the [illegible] profession has quite recently been called to an interesting series of experiments instituted with the view of determining a very singular property which it is now supposed alcohol exerts. I refer to its influence upon animal temperature. In an interesting article, entitled "the influence of Alcohol upon the temperature of the body", from the pen of Prof. Binz, of the University of Bonn, numerous experiments are cited illustra-

tion, this result. From time to time [illegible] seem to [illegible] in connection with one, [illegible] at the conclusion that alcohol reduces the [illegible]. He terms this "the antiseptic property of alcohol". [illegible] possession of this property is contrary to the universally received ideas on the subject, I need hardly [illegible] by means disprove its existence.

Of quite a number of tables contained in the article in question, I give one which may serve to illustrate the degree to which this action is capable of being carried within certain prescribed limits.

Experiment.— A strong poodle, about four years old. 25 C.cm of Alcohol, mingled with water, were introduced into the stomach.

The experiment was instituted at 12.15 P.M.

The following result is given:-

Vol.	Ind. heat.	Value.
1.0	39°.5	108
1.1	37°.1	112
1.0	36°.7	118
1.0	36°.5	117
1.0	36°.5	112
1.0	35°.8	113

It will be observed, as something rather remarkable, from a consideration of the above table, that the values rise in a relative ratio to the fall of the Temperature.

A very interesting subject of enquiry is opened up by this article of Prof. Bing. In considering the possible operating causes to which may be attributed the refrigerating influence of alcohol, Prof. Bing thinks it most probable "that it exerts its influence directly on the oxidizing processes which take place in the juices." How far this influence upon

regulation is effected through some such agency as I have hinted at. I am not, of course, assuming to decide this; but I think there is sufficient interest to elicit further investigation.

The whole question of the ultimate physiological action of alcohol, in respect to the two important particulars to which I have alluded, may be justly regarded, in my opinion, as still sub judice; and consequently any further speculations as to its nature, however entertaining they might be to the writer, would in point of fact be idle and superfluous.

I heartily concur, however, in the hope expressed by Prof. Binz, "that further and more extended series of experiments will enable this question to be decided."

I shall now proceed to speak of some of the general indications for the therapeutic employment of alcohol; not in detail, but briefly as I can. These may be easily inferred from what has already been said.

In the first place, what advantages if any, does alcohol possess as a, and under what circumstances should it be employed?

The answer is obvious ... [illegible] ... prostration, and in debilitated conditions in which it is impossible that food should be assimilated to any extent, alcohol may take its place, and what food can be taken, by the judicious employment of alcohol, is made to go further in sustaining the system. That life may be sustained for a considerable length of time on alcohol alone, is frequently seen in cases of acute Pneumonia.

I will say, in brief, that there are three principal indications for its employment.

First — when supporting measures are urgently demanded.

Second — where food can not be appropriated.

Third — in severe nervous prostration or collapse.

I do not know that I could better illustrate a condition

in which all these indications may possibly exist them by submitting an extract from my notes on the [illegible] application of alcohol. Dr. [illegible] in his lecture upon this subject, cites a type case in which alcohol could be employed [illegible] happiest effects. The case in point was one of a low condition of enteric fever in which the powers of life are very much exhausted.

"In such a condition alcohol gives the most markedly good effects. The pulse is the guide for the amount to be used. As long as this does not exceed 115 to 120 give ℥ IV of brandy in divided doses in the twenty four hours: when 130 give ℥ VIII in the twenty four hours; when 140 in the same proportion; increasing the amount when the pulse is weakened; and in very severe cases as much as ℥ ß of brandy may be given every half hour through the day. The stimulation should be kept up during the night. In such a case as this just cited the most happy effects will be observed to follow the judicious employment of alcohol.

in stimulation. [illegible] pulse will become [illegible], the strength of the patient will be ~~[illegible]~~ [illegible]ly increased, and wakefulness, that terrible [illegible]ing, will give place to refreshing sleep.

This type case will, I think, be sufficient to give direction to its general employment, and I therefore shall only add a word more. The circumstances which call for the use of alcohol in acute inflammatory di^se^ses are the same as those which demand its employment in the continued fevers. But the routine and indiscriminate use of alcohol in any disease is not to be thought of. The treatment should be regulated by the requirements of the individual case. The mortality among doctor Todd's patients was in direct proportion to the indiscriminate use of alcoholic stimulation. This mortality has only been equaled in the experience of doctor Bouillaud, with whom the indiscriminate depletory

Treatment by bleeding obtained. The former, which at certainly is the philosophical plan, is to take a medium position between the two; The indications for the employ[illegible] in acute diseases being great vehemence, delirium, [illegible] emaciation, &c, and especially where there is inability to take and assimilate animal food.

There are many very interesting chronic lesions which occur in the regulars of the habitual & prolonged use of alcohol, and my said ones they are indeed, which would extend this paper much beyond the prescribed limits, did I enter into their consideration with any degree of minuteness. I would only observe, in brief, that some of the most intractable diseases which afflict our fallen humanity may be directly traced, as we would follow the windings of a stream to its fountain head, to the habitual use of alcohol, among the most important and distinct

ion of which may be mentioned the [illegible] forms of Bright's Disease.

I can not conclude this [illegible] sketch on the action of alcohol without expressing [illegible] obligations to Prof. Chaud for the light he has thrown on this important subject; and without claiming his indulgence, also, for the hasty and incomplete consideration which it has only been able to receive at my hands.

John Morgan McKown.

Feby. 5th, 1870.

Typhoid Fever

February 12th 1870

Jo. R. Harris

Typhoid Fever

The term typhoid signifying typhus like is derived from the Greek substantive τυφος (stupor) and is applied to a peculiar character of febrile disease which has as its pathognomonic lesion the alteration of the various Glands of the small intestine but principally involving those of Peyer and the "Glandulae solitariae" The appropriateness of the term typhoid has been the subject of much energetic discussion and adverse parties have contended over it with characteristic professional vehemence and obstinacy, Our erudite German brethren term it abdominal fever or abdominal typhus, assuming as a basis for the name the common but exceptional fact, that its gravest lesions

have their seat in this region. Prof. Wood proposes the name of "enteric fever" but an astute Englishman Dr Murchison objects most strenuously on the grounds that it conveys the impression of the febrile condition having resulted from these intestinal lesions. He then suggests the appellative of Pythogenic fever and in turn his reputation for creative ability is somewhat impaired by the dissenting voice of Dr Flint who coolly intimates that the source of the special cause as implied by the terms has not been satisfactorily or incontestably established. The name of Typhoid therefore objectionable as it is, is retained. But whether we accept the Typhoid mitior or Dothenenterites of

the older [illegible], or tranquilly await for the proper vocabulary of the Germans to supply a terminology which will pugile the two. Having been [illegible] pronounce, [illegible] but little the essential nature of the malady and serves [illegible] guides us but indifferently to its etiology and appropriate treatment. We leave therefore this subject to those tempestuous spirits among us who regard it a sufficient "casus belli" and turn to what must necessarily be a brief consideration of its causes, and then to a more extended review of its course and treatment.

The cause of this malady is generally considered to be a poisoned or depraved condition of the blood. And it is essentially idiopathic rarely occurring as an intercurrent affection

be frequent, being in the brain other disorders as
Grave and frequent fatal complications
Some German pathologists hold that the
essential morbific principle or materies
morbi of this disease is a peculiar deposit
somewhat simulating the tuberculous deposit
of the pulmonary tissue, or rather a cachectic
condition of the blood exists which favours
the deposition of the peculiar products to
which they apply the terms of Typhus
or typhous tubercles Others explain it as
a series of catalytic changes occurring in
the blood This is merely a chemico philosophical
method of expressing a considerable degree of
mystification as to the character of the morbid
alterations which occur in this fluid Virchow
asserts that there is an impairment

of the respiratory or absorptive power of the red corpuscles which operates in preventing them from receiving an adequate quantity of oxygen for the wants of the system This corpuscular debility – Granting the theory to be reasonable – is observed in the tendency of the disease towards death from low Asthenia and this despite the efforts to maintain the power of the economy by stimulants and thorough oxygenation

As to the infectious or contagious character of the malady there is great diversity of opinion That it may be and has been communicated under certain peculiar circumstances is incontestable and it is equally indisputable, that persons exposed in every way to its influences

have case, We therefore deduce the inference that its special cause is capable of [illegible] [illegible] [illegible] and [illegible] either, or it may be produced within the system [illegible]. The [illegible] vapours from cess pools, [illegible] waters and the miasmatic exhalations from the sewers of large cities are held to be productive of the disease.

Clinical history

The incubation stage of typhoid fever is as a rule prolonged. The patient sometimes for weeks merely complaining of loss of appetite and an indescribable sensation of weariness and aversion to anything like physical or mental occupation. Obscure pains with slight headache and shiverings. These symptoms gradually increase in severity until sharp

rigors [illegible] temperature and often delirium
[illegible] of the prodromic
[illegible]
of the [illegible] The General aspect
of the patient at this time is peculiar, the
face is [illegible], the eye dull and expressionless
and there is stupor or listless indifference to
surroundings. A few days later and the
countenance may wear an appearance of almost
complete imbecility and idiotcy and this foreshadows
a grave termination or at best a severe and
obstinate course of disease. The occurrence of delirium
is not confined to the earlier stages of the
disease. It more frequently makes its appearance
about the second week and exceptionally as
late as the third. Irrespective of delirium
the mental condition during the 3d & 4th

[illegible] is characterised by a stupor and indifference with more or less obscuration of special sensibility as well as general. As regards the digestive [illegible] the rule [illegible] of the tongue a dry, a black crust, and dark matter collects on the lips and teeth and this is especially the case in grave cases. The very marked & valuable, pathognomonic appearance is the rose coloured eruption which occurs mainly between the 7th & 14th day and generally over the trunk they are widely diffused, very minute in size and disappear momentarily on pressure. The bowels are loose the evacuations being yellow and thin. Tympanites and tenderness over caecal valve and colon is very frequent, with more or less tension and intolerance of pressure there

The treatment in the majority of cases is mainly sustaining, the disease rapidly impairing the powers of the system and rendering the condition of the patient precarious from the extreme adynamia which supervenes after the disappearance

disappearance of all febrile action. In the earlier stages or during the intensity of the fever when there is extreme heat & sedump of surface with active delirium and threatening cerebral congestion, some Authors indulge hints as to the propriety of Antimony and digitalis, I do not intend to combat the views of Drs Flint and other eminent lights, nor I heard no such suggestions from our able Professor of Practice and it does seem to me that if I were induced to use these powerful depressing agents at all I would employ them in doses of Homoeopathic proportions I would much prefer cold effusions and opium under the above condition, Nitrate of Potash and Nitrous powders by reason of their effect on febrile action are effective as are the Sulphites and hyposulphites in arresting the changes of fermentation going in in the blood Soda powders and other refrigerant laxatives are needed and prove beneficial Hydrochloric and Nitric Acid are regarded as highly efficacious and

Statistics of [illegible] in Bellevue Hospital
give [illegible] results. Their curative
agency is [illegible] condition of the
blood [illegible] and their [illegible]
in [illegible] been used in the
wards of the [illegible] Hospital with favorable
results and is commended both by Drs Mitchell
and Crew. Spirits Turpentine has for years enjoyed
the reputation of a sine qua non in the treatment
of this disease. It is regarded as especially
indicated when marked efflorescence of
tongue and fauces occur with dryness of
surface, and well defined abdominal
symptoms. Prof Wood holds that its
immediate influence is directed towards
the prevention of intestinal lesions, acting
in some manner in preventing the ulceration

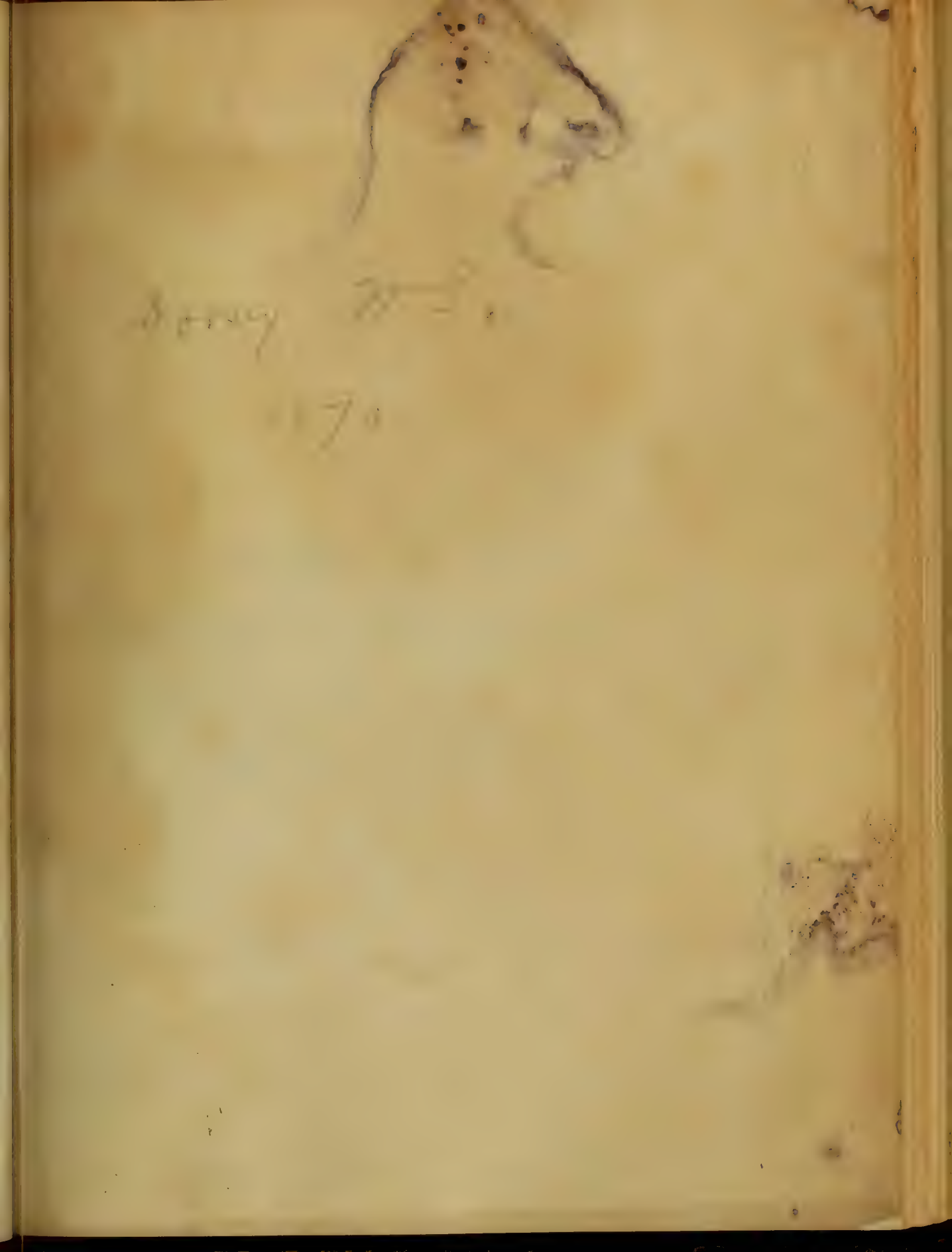
with c[illegible] fleeing and breaking down of the [illegible] [illegible]

In excessive [illegible], with impeded respiration, enemas containing a preponderating element of the staple of W. C. is confidently advised.

The [illegible] of [illegible] stimulation can not be carried on [illegible]. Much timidity, however is shown by some practitioners in its employment — it being given rather in doses of insufficient quantity or else delayed until [illegible] has so firmly grappled the patient as to render its reviving effects utterly nugatory. A marked frequency of pulse & heart is by no means a contraindication. The writer has seen it administered even when the symptoms simulated cerebral engorgement — with the most marked and prompt relief. The pulse regaining strength and diminishing in frequency, and the delirium giving place to

perfect [illegible] with refreshing sleep and
[illegible]
[illegible] rather by
[illegible]
organs. It is unnecessary to advert here to the over-
shadowing importance of the most perfect hygienic regulation
the cleanliness & thorough ventilation of the sick chamber the
frequent changing of bed & the patient's linen and all of
these minor details of the subject which belong rather to the
domain of good housewifery than to that of a medical
student's essay. In conclusion the author would beg
of the Faculty an indulgent consideration of this crude and imperfect
effort, written amid the haste and pressure of impending
examinations and drawn but from a limited observation of the
actual disease ~~and~~

Respectfully Submitted
John W. Harris



AN

Inaugural Dissertation

ON

[illegible]

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

[illegible]

Of

[illegible]

Session of [illegible]

Stricture of the Urethra.

"The male urethra situated under & below the corpora cavernosa of the penis, extends from the [illegible] of the bladder, to the meatus urinarius. It is curved in its course so as to resemble, in its flaccid state the Italic letter f. But in the erect state it forms only a slight curve the concavity of which looks upwards.

Its length is from 8 to 9 inches; and it is divided into three portions, com-

[illegible] from the bladder; the prostatic portion, the [illegible] portion, & the spongy portion; the structure & relations of which are very different.

The Prostatic portion is the widest & most dilatable part, it passes through the prostate gland, and is about an inch & a quater in length. The canal in this portion is rather spinale shaped, being narrowest in front & widest in the middle. On the floor of the canal is a longitudinal ridge, the very montanum or caput gallinaginis, formed of a fold of mucus membra

The Membranous portion of the urethra extends from the prostate gland to the bulb of the corpus spongiosum. it is the narrowest part of the canal, except the meatus, and it measures 3/4 inch in length on its upper & 1/2 inch on its lower surface. Its upper concave surface is placed about an inch beneath the pubic arch, from which it is seperated by the dorsal vessels & nerves of the penis, & some muscular fibres. It is seperated from the rectum by the perineum. It perforates the deep perineal fascia, and is surrounded by the Compressor Urethrae muscle.

The spongy portion is the longest part of the urethra, and is contained in the corpus spongiosum of the penis. It is about 6 inches in length and extends from the termination of the membranous portion to the meatus urinarius. It is of uniform size throughout its whole extent.

The meatus urinarius is the most contracted part of the urethra; it is a vertical slit about three lines in length, bounded on each side by two small labia. The mucous membrane inside, especially on the floor of the spongy portion pre- [illegible] the orifices of numerous

mucus glands. One of the lacunae larger than the rest, called the [illegible] magna is situated on the upper surface of the fossa navicularis about an inch 4½ from the meatus; and is apt to engage the point of the catheter unless care is taken to avoid it.

Structure. The urethra is composed of three coats, mucus, muscular, and erectile. The mucus coat is continuous with the mucus lining of the bladder, vas deferens &c. The muscular coat consists of two coats layers of [illegible] muscular fibres, an external longitudinal

[illegible]ial layer, and an internal circular layer.
The erectile tissue is continuous from the corpus spongiosum round the membranous and prostatic portions of the urethra to the neck of the bladder." From Grey.

When we speak of Stricture of the urethra, we mean a narrowing of the canal at one or more points.
Strictures are divided into three classes viz:
1st Spasmodic, caused by a spasmodic action of the muscular fibres

situated outside of the urethra.
2d Caused by congestion of the mucus membrane of the canal.
3d Caused by organic changes in the mucous & submucous tissue.

Spasmodic Stricture. Many surgeons doubt the existence of this form of stricture, because they have failed to discover any muscular fibres around the urethra. This question has been settled by the researches of Pollitzer & Hancock who have clearly demonstrated the

existence of two sets of muscular fibres around the urethra:
Without this evidence, the existence of this form of structure would still be conclusive from the fact, that often on introducing the catheter the surgeon will feel it meet with an obstruction which will yield with that species of quivering that is peculiar to spasm of muscular fibre. Again the patient will at one time pass his urine with perfect freedom, whilst, if it be rendered acid, almost complete obstruction will ensue.

The causes of spasmodic stricture
are such as occasion a relaxed and
irritable state of the system; as
residence in hot climates, drinking
venereal excesses; also certain condition
of the urine as excess of the
lithates; and exposure to cold &
wet.

The symptoms of spasmodic stricture
are narrowing of the canal and
impediment to the flow of urine
rapidly appearing on certain
causes and as rapidly disappearing
Spasmodic stricture may be asso-
ciated with either the congestive or
organic type of the disease.

Treatment of spasmodic stricture. Opium suppository containing two grains, in a little starch must be thrown in the rectum, and a warm hip bath used and a ten grain Dover's powder given. As the opium takes effect the urine will usually flow without difficulty. The bowels should then be moved and the patient will be relieved. A suppository in the form of a pill containing Opium 1 gr camphor 5 gr will be of benefit. If the spasm continues a small bougie should be introduced

Congestion plays an important part in all strictures, yet there are strictures which are purely congestive. The membranous (and prostatic) [illegible] are most liable to this form; especially the fold of mucous membrane constituting the [illegible]. These strictures frequently occur as the result of long continued inflammation of the urethra, or by irritating substances in the urine.

In congestive stricture we not only find the common symptoms occasioned by an impediment to the free passage of the urine, but

some swelling of the lips of the urethra with redness & eversion of them. There is also a gleety discharge, and a sense of weight or fulness in the perineum; and pain or micturition.

Treatment of [illegible] importance is proper regulation of diet. Make urine alkaline. Apply lacerations to perinaeum. Use warm hip bath. Congestive strictures require the introduction of bougies to prevent the constriction from becoming permanent. Hemorrhage usually follows the passage of the bougie or catheter: not from laceration

but simply as the result of compression of the mucous membrane; and the discharge of blood appears rather to be beneficial than otherwise.
The third class and the most important is Organic Stricture. Organic Stricture is the result of long continued inflammation of the urethra, leading to changes in the mucous membrane; or of some injury to the canal from blows or kicks in the perineum, by which a portion of it is destroyed or sloughs away. Repeated gonorrhoea or long continued gleets are the cause

frequent causes of this disease
In the urethra plastic matter
is deposited in and around the
mucous membrane; and in the
submucous tissue, as the result
of inflammation; consolidation
of this takes place, followed by
contraction of the canal.
Urinary strictures are most
common between the age of 25 & 40
although they may occur at
almost any age.
With regard to the most common
seat of strictures; the views of Mr
Thompson are the received ones at
present.

Mr Thompson states that the part most affected is the bulbous portion of the spongy portion of the urethra. Very rarely is it found in the membranous portion. He examined 270 preparations found in the largest museums of Europe. 67 per cent were in the bulb. 17 per cent near the meatus. and 16 per cent between the two. He further states that there is not a single preparation of a stricture of the prostatic portion. Strictures are found only in those parts of the urethra surrounded by erectile tissue.

Mr Thompson divides the urethra into 3 parts.
~~[illegible] the anterior portion ... in front of ...~~
3d from the meatus 2½ inches back.
[illegible] these two. [illegible]

The character of stricture varies greatly, in some they are annular, in others the whole canal, and occasionally for some distance. Again we have the firm thread-like stricture consisting of bands stretching across the urethra. The amount of constriction varies greatly, from mere slight narrowing of the canal to almost complete obstruction of it.

When an organic stricture is once formed, nothing will remove it but surgical interference. The urethra behind a stricture becomes larger, the bladder becomes fasciculated. The

urethra are often found dilated & the kidneys become irritated and congested.

Symptoms. Diminished flow of urine, frequent micturition; straining sometimes a gleety discharge. The stream of urine may have changes impressed upon it during its passage of a stricture, by which its shape and direction are modified. Thus it becomes forked, scattered, twisted, fan like, or even split. The existence of stricture can be determined with certainty only by the introduction of an instrument in the urethra.

In exploring the canal in a suspected case, two points are to be ascertained - the existence of a stricture and the degree of tightness.

The best instrument to determine the existence of stricture is a silver catheter of medium size, say about No 8, well oiled and warmed. This will readily pass to the constricted point and then be arrested. We use a large instrument to prevent the point from being entangled in one of the folds of the urethra or against the verumontanum, which would lead to a false impression.

The existence of stricture having been ascertained, the next point to ascertain is its degree of tightness. The best way to do this is to introduce a conical gum bougie well oiled and armed with a point of [illegible] and enlarging to about [illegible]. The point which passes the stricture and we can see from the impression of the stricture on the soft bougie the ax its exact size. Some surgeons prefer a metallic instrument, using a smaller one each time until they can engage one in the stricture.

Organic structures may be treated by four different plans, viz.

I. Gradual mechanical dilatation.

II. Caustics

III. Forcible expansion or Rupture.

IV. Division of the constriction.

In our treatment of stricture we must remember that it is a very serious disease and will, almost inevitably, if left to itself terminate fatally by the induction of renal disease. We must therefore not hesitate to adopt sufficiently energetic measures for its removal. And if these be properly conducted there is scarcely any affection in which the surgeon can afford greater relief.

Gradual Mechanical Dilitation.

It is not the mere stretching of the stricture that cures it, but the curve pressure of the instrument against the walls of the mass, tends to promote the absorption of the plastic mass which constitutes the stricture & thus occasions a permanent cure. Surgeons differ in the choice of instruments to effect dilitation. Erichsen prefers the metallic instruments. Bumstead the conical gum bougie with a slight bulb on the end. This I believe to be the best it enters the stricture easily and the end, having once passed

the bougie is a wedge, it constantly tends to open the stricture. Dr Smith prefers a straight bougie made of the bark of slippery elm which being well oiled enters as easily as any other and on absorbing the mucus from the walls of the canal swells up to double its original size, and so overcomes the stricture.

* The received idea at present is That forcible dilatation and division are preferable to gradual dilatation. (Braithwaite's Retrospect. Part ~~LIX~~ LIX. July 1869 page 166).

* [illegible] in the hands of those [illegible] with the instruments, [illegible] for the general practioner, gradual dilatation is the [illegible]

By Caustics has been entirely abandoned.

Forcible Expansion or Rupture

This method of curing stricture is not only as safe as that of gradual dilatation but in this advantage, that the whole thing is done at one sitting instead of having a series of introductions of the catheter which is not unattended with danger. And, besides the tendency to relapse is not so great; Although in all cases it is necessary to have the catheter introduced at periods varying from one week to

one month for several years after the stricture has been over-come, to prevent a return to which there is a constant tendency.

Taking the operation as done by Holt's instrument as a type example of forcible dilitation, I will describe it.

Holt's instrument consists of a sound (No) which is split at one of its extremity & encloses a central rod which is hollow to allow urine to pass through it, and thus shows when it is in the bladder. The central rod serving

as a guide to a number of rods
which may be passed along it
with the effect of forcible separating
the fibres and rupturing the
stricture. The great objection
to Holt's instrument is that it
is so large that it cannot pass
small strictures. Dr Bumstead
to obviate this difficulty has
fitted a filiform wax bougie,
such as belong to Maisonneuve's
Urethrotome, ~~which~~ to Holt's, which
allows the instrument to enter
the bladder without difficulty.
Division of Stricture of the
Urethra may be practised with

the urethra or from without through the perinaeum.
Division from without is only justifiable in cases of impervious stricture and then only after every other method has been tried in vain.
Division within the urethra is best accomplished by Maisonneuve's Urethrotome. An instrument so well known that it is not worth while to describe it here.
A description of it may be found in Ansteads [illegible] p. 297.
All these methods of overcoming stricture have their advocates

but statistics show they all have
about the same results.
The results of bad management
of strictures, and how to puncture
the bladder in cases of imper-
meable stricture. &c &c &c
will have to be omitted to
prevent this thesis from being
drawn out to an unpardonable
length.

William Egert Dorsey
Baltimore
Md.

Jan 1st 1870.

AN

Inaugural Dissertation

ON

[illegible]

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

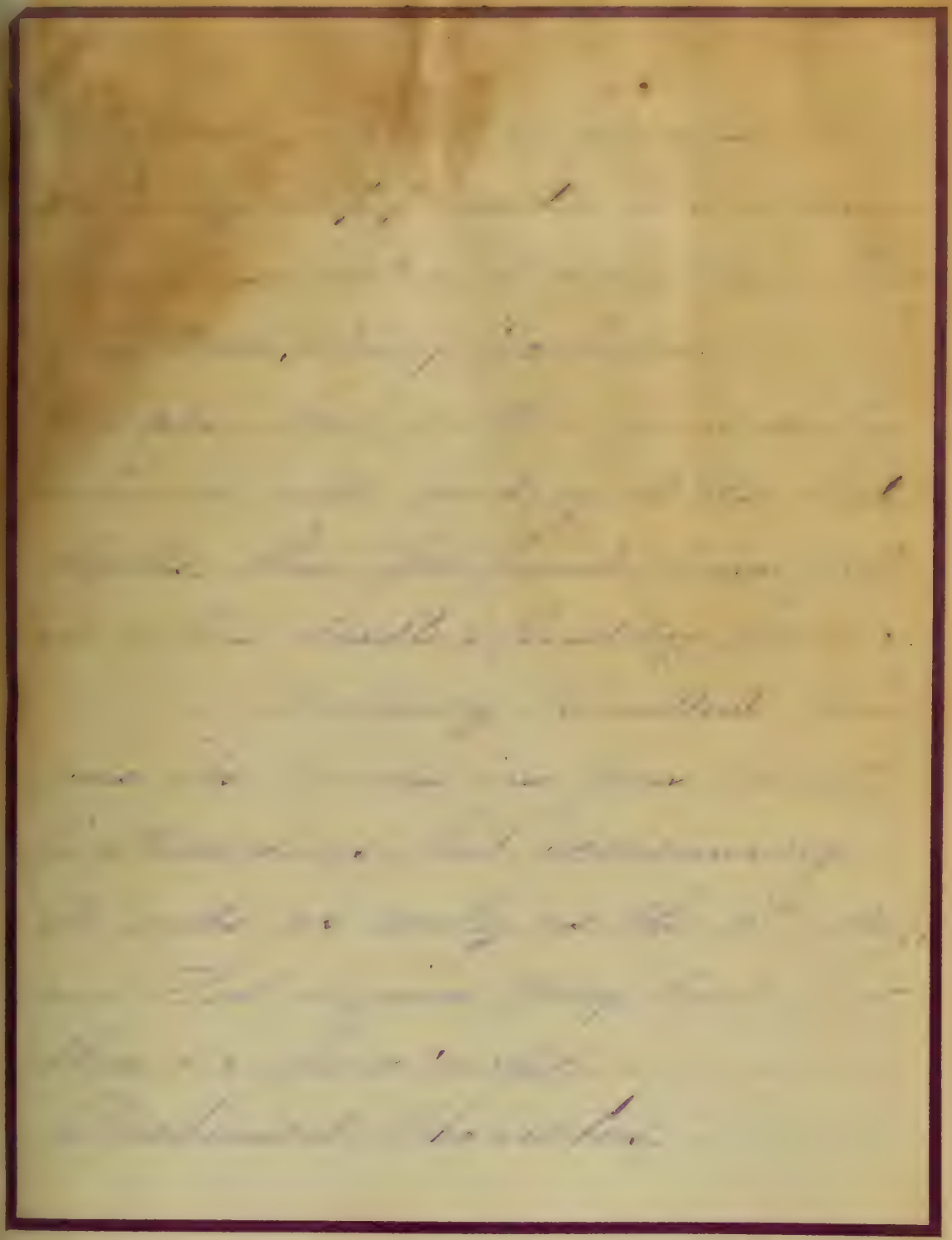
By

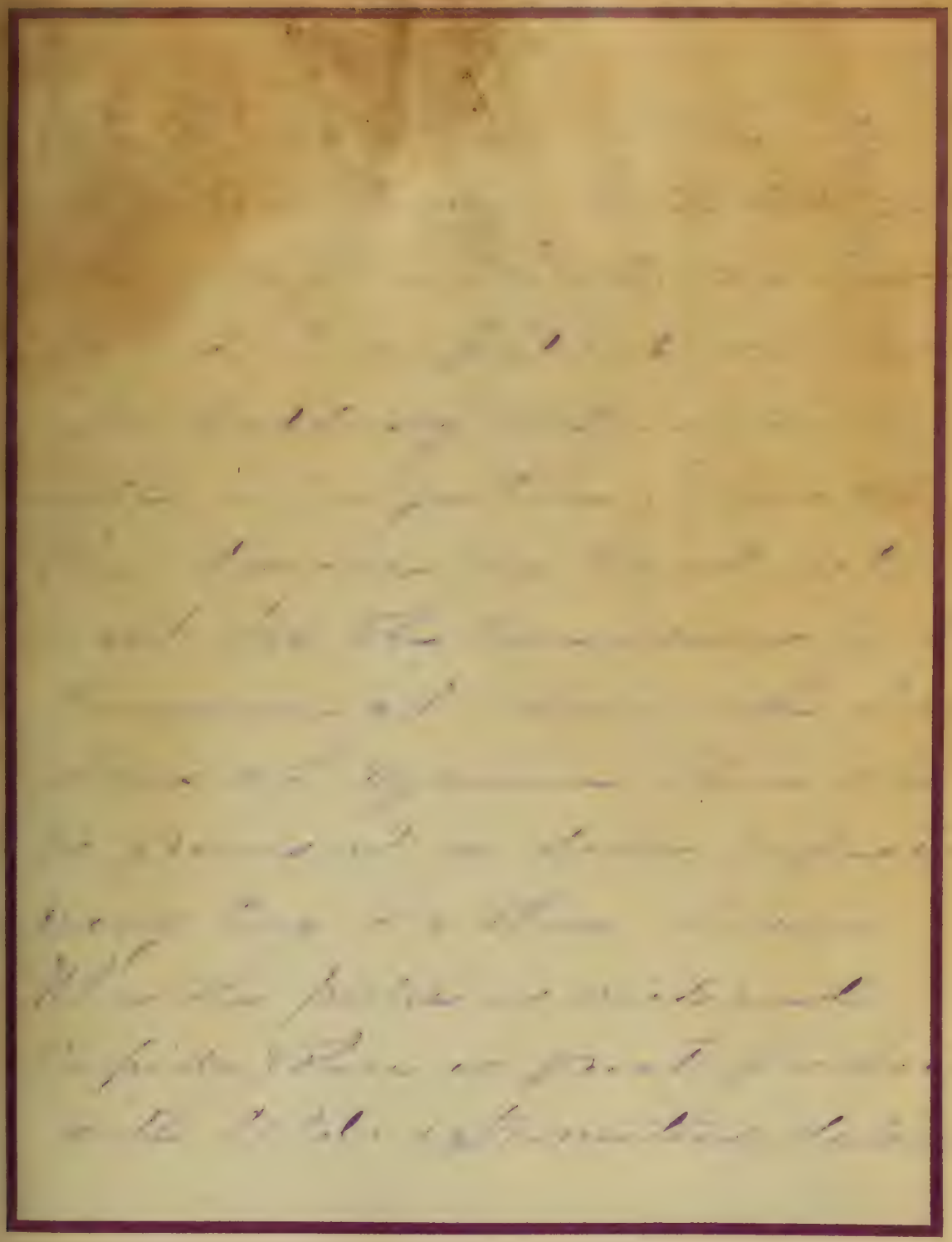
Charles Pitts

Of

Virginia

Session of 1870





AN

Inaugural Dissertation

ON

Circulation

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

J. H. Hanks

Of

Maryland.

Session of 1870.

Circulation.

By this term is understood the function by which the circulation [illegible] which [illegible] of the [illegible] [illegible] The [illegible] [illegible] body, or by which substances produced generally in the tissues are conveyed to particular organs, to be eliminated or [illegible].

The apparatus [illegible] to perform [illegible] of four different parts, viz: 1st The heart; a hollow, muscular organ which receives the blood at one orifice and drives it out in successive impulses at another. 2d The arteries: [illegible]

First [illegible] of the [illegible]

[illegible] organs of the body. 3rd The cap-

network of minute tubules, ramifying in

the substances of the tissues, and bring

the blood in immediate contact with

the cells and fibres thereof. 4th The veins

a set of converging vessels, which collect

the blood from the capillaries and re-

turns it to the heart. In each of the [illegible]

[illegible]

[illegible]

[illegible]

It will therefore require to be studied

in each one of them separately.

The Heart.

The entire organ has conical form, the

base of which is situated on the med-

[illegible], directed upward and backward;
being suspended in the chest, and loose
[illegible] to the spinal column but [illegible]
vessels which enter and leave it at its [illegible]
[illegible]
to the left is surrounded by pericardium
[illegible]
of free lateral and rotatory movement.
The auricles smaller in capacity and [illegible]
[illegible]
[illegible]
[illegible]
The latter moreover are not on the same
plane [illegible]
in front and above the left; so that in
viewing anteriorly a greater portion of the
left ventricle is not seen; posteriorly the [illegible]

[illegible] to pass [illegible] auricles into
the ventricles ~~and the ventricles~~, and [illegible]
ventricles into the arteries, but shuts and [illegible]
[illegible] from flowing back during the contraction
[illegible]
[illegible]
the right auricle; into the right ventricle.
On contraction of the right ventricles the
tricuspid valves shut back preventing it [illegible]
[illegible]
ven into the pulmonary arteries to the lungs.
[illegible]
veins thence into the left ventricle, the [illegible]
valves preventing its return, it is then forced
into the aorta and distributed throughout
the body. This movement of the blood [illegible]
the cardiac cavities is not a steady [illegible],

[illegible]

[illegible]

[illegible]

are driven from the auricles, into the vent[illegible]

and [illegible] them into the arteries. Each of the succe[illegible]

[illegible] actions are called a beat, or pulsatio[illegible]

the heart.

The sounds of the heart are two in nu[illegible]

The first and second sounds of the hea[illegible]

[illegible]

intercepts at the anterior part of the chest or

[illegible]

[illegible]

entire beat. It corresponds in time to the im[illegible]

[illegible]

stroke of the larger arteries in the vicinity of the

[illegible]t. The first sound is produce by the [illegible]

[illegible]

[illegible]

time of the [illegible], and its impulse against the

[thor]acic parietes. The second follows immediately up-

on the first [illegible]

[illegible]

valves on a line with the third costal cartilage,

and occupies about one quarter of a pulsation

[illegible] followed by an interval of silence, when the first

sound is again heard. The whole time of a cardiac

pulsation [illegible]

occupies two thirds by the second and the sixth by

the interval of silence.

The cause of the second sound is the [illegible]

tion of the aortic and pulmonary valves, which is

established by the following proofs: 1st This sound is distinctly

heard over the above named valves 2d It becomes faint

At the time of contraction the ventricles elongate & the point protrodes. This was very well described by Dr. Harvey. And modern observers (Drs. C. W. Pennock and E. M. Moore of Philadelphia) by experimenting upon animals; have remarked the ventricles to elongate too such an extent as to enable them to apply a measure to the heart while in motion. The ventricular contraction is an active movement, the relaxation a passive one.

The cause of the ventricular elongation is the contraction of the deep circular fibres of the heart. Their action tend to draw the lateral walls of the heart together and thus to diminish the transverse diametre of the organ; but as each fibre become thickened in direct proportion to its contraction, their combined lateral swelling pushes out the apex of the ventricles, and

[illegible]

of its contraction, [illegible]

[illegible]

[illegible], and produces [illegible] of the [illegible]

is readily perceptible, both to the [illegible]

[illegible]

away from the anterior [illegible]

[illegible]

and forward, the pericardium [illegible]

its movements, [illegible]

advances [illegible]

The rhythm of the heart's pulsation is peculiar and is made up of a double series of contractions and relaxations for each pulsation. The auricles contract together and then the ventricles. After each there follows a period of repose. The auricular contraction is short and feeble occupying the first part of the time of a pulsation. The ventricular is longer stronger, and occupies the latter part of the same time. After the ventricular contraction comes a short period of repose which is followed by the auricular contraction again. The auricular and ventricular contractions do not alternate distinctly with each other, but are connected and continuous. The contraction of the auricles is propagated to the ventricles and runs rapidly to the apex of the heart.

The two motions; one of the auricle and the other of the ventricle, take place successively but in such a manner that there is a kind of harmony or rhythm between them, the two concurring in a way that but one motion is apparent. The entire action of the auricles and ventricles is accordingly, as follows: The contraction begins in the auricles is transmitted to the ventricles which contract vigorously causing the apex to protrude and strike against the walls of the chest at the same time it twists from left to right. The auriculo-ventricular valves are closed; the first of the heart produced, and the blood sent into the aorta and pulmonary artery. Thence through the the pulmonary and arterial system

[illegible]

tracts.

[illegible]

combined area of all the [illegible]

[illegible]

that the combined area of all the small arteries is

[illegible]

[illegible] originates. As the blood in its passage to

the heart outward flows successively through [illegible]

[illegible] larger spaces the rapidity must [illegible]

consequence diminish as the distance from the

heart increases. It passes swiftly through the [illegible]

slower through the smaller and still [illegible]

[illegible] approaches the capillaries.

[illegible]

[illegible]

[illegible]ided from within outwards by successive trans[illegible]

of the vessels but communicating with the aorta at one extremity, and with the capillaries at the other, and are filled everywhere with the circulating fluid. At the time of the ventricular contraction the auriculo ventricular valves close preventing the regurgitation of the blood into the auricle it is forced through the aortic orifice and into the arterial ramifications distending them by the additional quantity of fluid forced into their cavities. In the relaxation which follows the ventricular contraction the blood, was it not stopped by the semilunar valves, would flow back into the ventricles from the reaction of the arterial walls upon it. but being prevented from doing so by the action of these valves it is urged onward under the elastic pressure of the large into the smaller arterial branches. When they have thus partially emptied themselves

[illegible]

[illegible] which deserve special notice, is the [illegible]

[illegible] the [illegible]

pulse in the arteries as the distance increases [illegible]

[illegible]

[illegible]

[illegible] an another finger on the carotid artery there is [illegible]

[illegible]

[illegible]

between it and the hearts impulse; the radial [illegible]

[illegible]

[illegible]

the latter ;

[illegible]

[illegible]

[illegible] this difference in time is rather relative than [illegible]

[illegible] The impulse of the hearts contraction is comm[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] of the arterial pulse is produced in the following way —

1st The left ventricle contracts sudden and [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] diate [illegible] is [illegible] and [illegible]

[illegible]

[illegible]

[illegible] extended to the same degree nor with the same rapidity. And accordingly the arteries [illegible]

[illegible]

Owing to the alternate contractions and relaxations of the heart the blood passes through the arteries [illegible] in a steady stream but in a series of impulses so that by the successive jets and more rapid [illegible] arterial from venous or capillary hemorrhage. If a puncture be made in the wall of the ventricle and a [illegible] [illegible] ventricular contraction, and at each relaxation [illegible] [illegible] [illegible] one only it is much stronger during the heart's contraction. If the blood were driven through a set [illegible] would [illegible]

... the p[illegible] [illegible]

[illegible]

... force to the reaction of the arteries by about one-t...

... the impetus with which the blood circulates th...

the arteries is very great, & its greatest velocity is near

the heart ... [illegible] ... as it ...

further and farther from the centre of the c...

...lation. This diminution of the arterial curre...

... to the successive division of the aorta and ...

... branches into smaller and smaller ram...

...ifications, by which the total calibre of the ...

... is increased [illegible] ...

... through a larger space flows more slowly

[illegible]

... with which the blood comes in contact

..., as well as the mechanical obstacle ari...

... the division of the vessels and the separat...

of the stream contributes more or less to retard its current.

The blood is supposed to move through the arteries at the rate of 12 inches per second. in the larger arteries its rapidity in the small arteries has not been conclusively ascertained.

The Capillary Circulation

As the arteries proceed further and further from the seat of the circulation they become smaller by repeated division and subdivision until they finally lose their fibrous and muscular coats and terminate as simple homogeneous membranous tubules inosculating freely with each other, and permeating the vascular organs in every direction so as to bring the blood in immediate contact with the substance thereof. These tubules are called capillaries, and constitute the connecting link between the arterial and venous circulation.

Their size is not uniform throughout the body being much larger in some parts than others. They vary in size from the $\frac{1}{3000}$ to the $\frac{1}{5000}$ of an inch in diameter. The thickness

of their walls is from the 12000 to the 25000 of an inch.

The adherence of the fibrous and muscular coats together with the frequency and peculiarity of inoculation makes the distinctive difference between the capillaries on the one hand and the arteries and veins on the other. The capillaries inoculate indiscriminately in all directions; while the arteries divide and subdivide constantly as they pass outwards; the veins as constantly unite with each other to form larger and larger trunk as they proceed toward the heart.

The plexuses formed by the interlacing of the capillary vessels are not the same in all parts of the body. They are rich and abundant in some parts while in others

than an corpuscle of pus. The spaces between them, also, vary in shape and size in different parts of the body.

The movement of the blood in the capillaries is uniform and continuous; the rapid than in either the arteries or veins; and without any contraction or relaxation of the vessels; very much like the passage of a fluid through glass tubes. Another peculiarity is that it flows as if without any fixed direction, passing above and below and in every direction that the blood may be brought in immediate contact with the tissues of the parts.

The motion of the red and white corpuscles in the blood is also peculiar. In the larger vessels the red globules pass along the middle of the current. The spaces near the edges of the

vessel is occupied by the plasma of the blood. In the smaller ones they pass two by two or singly one after another. Their folding up bending or twisting in turning corners and the ease with which they glide through minute vessels smaller than themselves, shows beautifully the flexibility and semi-fluidity of these bodies.
The white globules being much larger pass with difficulty through the capillaries; dragging slowly along the current next the walls of the vessels they collect in masses whenever the current is retarded in any manner. The red globules are flexible also, but not to the degree that the white are.

It is during this circulation of the blood that the function of nutrition is accomplished in the different organs and tissues of the body. The fluid portion of the blood containing the plastic material necessary for their nourishment transudes through the walls of the capillaries and are absorbed by the surrounding tissues. The saline substances entering into the composition of the parts without undergoing any change. The albuminous substances on the other hand are not only absorbed, but are transformed by catalysis into substances similar in character to those of the surrounding tissue. In this way the musculine of the muscles; the osteine of the bones and the cartilagine

of the cartilage is produced. It is supposed that these substances are not produced in the vessels themselves, but are produced from the organic constituents of the blood at the time they are absorbed by the tissues; in this way all the material is furnished directly or indirectly, for the nutrition of the body.

The physical conditions which influence the movements of the blood in the capillary, is, somewhat different from that which regulates the arterial or venous circulation.

The capillary circulation is due entirely to the steady and uniform pressure of the arterial system, produced by converting the intermittant and pulsatile character of the stream from the heart into an uniform

terrupted and steady flow by the reaction and elasticity of the arterial walls. The capillaries themselves have a small degree of elasticity which maintains the flow through them into the veins.

Experiments of Prof. Dalton on the vessels in the lower extremity has demonstrated this fact beyond a doubt. He took a full grown dog, killed it. The lower extremity was immediately injected with defibrinated blood, by the femoral artery, in order to prevente coagulation in the smaller vessels. A syringe with a double flexible nozzle was then filled with defibrinated blood, and one extremity of its injecting tube attached to the femoral artery, the other to the mouthpeice of a cardiometer

By making the injection, it was shown that the defibrinated blood ran through the femoral veins in a continuous stream under a pressure of 120 millimetres, and that it was discharged very freely under a pressure of 130 millimetres. It has been already seen that the arterial blood has a pressure equal to six inches of mercury or six feet of water, which quite sufficient to force the blood through the capillaries.

The capillaries as a general rule do not suffer from any backward pressure of the blood in the veins for as soon as it reaches the latter vessels regurgitation is prevented by a peculiar arranged of valves, and the voluntary muscular contraction of the parts

through which they pass. The right side of the heart too, by its contraction and action of its valvular apparatus continues the same progress so that the blood is constantly lifted away from the capillaries.

The most important mechanical influencies then by which the blood moves in the circulation, are: 1st The heart by its alternate contraction and relaxation and the backward action of the valves at the aorta the blood is forced into the large vessels. The arteries by reaction of their elastic walls converts the intermittent cardiac stream into a uniform and steady current. The pressure forces the blood through the capillaries into the veins. When it is car

and onward by the respiration & vascular contraction and the valves in these vessels.

The peculiar phenomena which show the various local influences exciting or retarding the capillary circulation in particular parts, independently of the heart's action (such as pallor or suffusion of the face under mental emotion; congestion of the mucous membrane of the alimentary canal during digestion; redness of the skin produced by local irritation &c.) are usually explained by the contraction or dilatation of these vessels under nervous influence. The precise manner in which these effects are produced is not known.

The rapidity of movement of the blood

through the capillaries is slower than in the arteries or veins. According to Valentine Weber Volkman and others who have made microscopic examinations on transparent vascular tissues, (as the web of a frog's foot or the mesentery of a rat.) it is not more than the one thirtieth of an inch per second: less than two inches per minute. The united calibre of all the capillaries in the body is estimated to be 350 to 400 times greater than the combined calibre of the arterial system. Although the calibre is so much greater the quantity of blood is larger in the arteries than in the capillaries. This is owing to the exceeding shortness of the capillaries. The anatomical structure of the capillary system is to ef-

fact the necessity of a comparatively small quantity of blood in a very large space. As the chemico-physiological reaction necessary to nutrition can take place with promptitude and energy. This also accounts also for the short time with which the blood passes through these vessels.

Venous Circulation

The veins are vessels which receive the blood from the tissues, and return it to the heart. They are composed like the arteries of three coats: an external middle and internal coat. They differ from the arteries, however, in containing less muscular and elastic fibre and more condensed areolar tissue; and consequently they are more flaccid and compressible than the arteries. They are divided into

two sets: deep and superficial. The first are in the viscera of the cavities of the body; the second are near the surface: as; throughout the extremities in the neck and over the head and trunk. The superficial contain more muscular fibre than the deep set; besides they contain valves while the deep veins do not. These valves consists of fibrous tissue arranged in kind of festoons, and placed in such manner as to let the blood pass from the circumference towards the heart; but, by closure the prevent it from flowing back again.

Although the walls of the veins are much thinner than those of the arteries: their capacity for resisting pressure is far more great. This has been shown repeatedly by

experiments. Milne Edwards has collected results of various experiments in which a pressure sufficient to rupture the walls of an artery, has been effected by resistance by a vein. The jugular vein has been known to support a pressure equal to a column of water 148 feet high; the iliac vein of a sheep has stood a pressure of more than four atmospheres; the portal vein was found capable of supporting a pressure equal to six atmospheres. In one case the aorta was ruptured by a pressure of 158 pounds, while the ascending cava of the same animal supported a pressure of 176 pounds. The greater strength of the veins over the arteries is due to their containing a greater amount of white fi-

tissue; so characteristic for its dense and [illegible] nature.

Another difference is the patulous condition which the arteries retain after they have been divide. The veins from their want of elasticity collapse as soon as they are emptied, and remain so.

The abundance of separate channels by which the blood is carried from the periphery of the body towards heart is peculair in the venous system. Since it differs so widely from the correspondt portion of the arterial system. The arteries go straight to the part they are to supply and nourish all the tissues in that vicinity; thus they are kept full all the time. It is not the case with the veins. If an injected preparation be exam-

ined there will be 4 or 5 veins found coming from a part supplied by a single artery; thus showing the greatest amount of calibre, and the frequency and freedom of inosculation in the venous system. The blood does not flow towards the heart in a single channel, but, through many; which communicate so freely together that it passes sometimes through one and again through others; thus obviating congestion from muscular contract.

The flow of blood through the veins is not as powerful nor is it as regular, as it is in the arteries. It depends upon the combination of three forces; viz: The aspiration force; the force of muscular contraction assisted by the valves of the veins, and the force of the capil

lary circulation.

The force of aspiration of the thorax: when the chest is expanded by the ribs being lifted upwards, and depression of the diaphragm the pressure upon its contents is diminished, and all the fluids accessible to this cavity immediately rushes in to fill the vacuum thus created. Its contents is chiefly atmospheric air, which passes through the trachea and branchial tubes into the vesicles of the lungs. The blood in the adjacent veins is likewise drawn in by this force. The force of aspiration produce by the expansion of the chest is gentle and uniform like the movements of respiration. It does not extend to a great distance from the chest; its move-

mate through the distant parts of the system is carried by the other forces; viz: muscular contraction & the capillary circulation.
The contraction of voluntary muscles:
The veins carrying the blood from the limbs and the walls of the head and trunk pass through voluntary muscles which are (many of them) in a constant state of alternate contraction — relaxation. At every contraction the muscles swell out laterally, increasing their bulk in that direction, and of course compresses the veins situated between them; This pressure forces the blood onward toward the heart; the valves of the veins preventing its return. When the muscles relax the veins are relieved from pressure again fill up from behind and the circulation

is in this way continued. The force of voluntary muscular contraction is very efficient in the production of venous circulation: being aware or less in a state of constant activity in all parts of the body, the veins are always liable to pressure from them (the muscles) This too accounts for the veins in the external parts communicating freely with one another by transverse branches; by this arrangement the blood which is momentarily excluded from one vein by the muscular pressure finds a ready passage through cross branches communicating with the first

Force of the Capillary Circulation:

This is the last and most important of all the forces, since it is the only one which

is constant and universally in motion. This circulation continually active, tends to fill the small branches of the veins with blood by a vis a tergo or pressure from behind as it is called. This force kept constantly in action keeps the venous system always full and so long as it is relieved of its blood at the cardiac extremity by the regular pulsations of that organ, there is no backward impulse to counteract that derived from the capillary circulation: the movement of the blood in the veins, therefore, is a steady and uniform flow.

Owing to the flaccidity of the venous parietes and readiness by which the flow of blood through the veins is disturbed: it is im-

possible to determine the capacity in the same manner as in the arteries. The capacity of the venous system when injected is from 2 to 4 times as great as that of the arteries. The veins are not as full as the arteries during life. Making allowance for this, we find the proportion of venous to arterial blood is about 3 to 2. By a calculation base upon a comparison of the relative capacity of the arterial and venous system, the velocity of the venous blood compared with that of the arterial, is as two is to three or about 8 inches per second. This calculation is only approximative and exact. Since the venous current varies according to circumstances in different parts of the body, being slower

near the capillaries and from them to the heart. It expresses however, with sufficient accuracy the relative velocity of the arterial and venous currents at corresponding parts of their course.

The Whole round of the circulation from the time the blood is forced into the aorta by the contraction of the left ventricle until it again enters that ventricle, is performed, according to the best authorities, in the space of 23 seconds.

I beg leave to submit the
following to the honorable faculty
of the University of Maryland.

John T Grimes

not in cat

Defective for want of a
title page

disease

Intermittent Fever

An intermittent fever is characterized by the occurrence of febrile paroxysms in regular succession and by the absence of febrile movement between the paroxysms. The intermissions is the distinctive feature of this form of fever as its name implies. Popularly the disease is known as "fever and ague" "chill fever" "the shakes" and by names expressive of the locality in which it is produced as in Louisiana "swamp fever" "Panama fever" etc. Although essentially the same disease intermittent fever as ordinarily presented in practice is attended with danger to life but occasionally it is one of the most dangerous of maladies. Hence it is proper to consider first simple or ordinary intermittent fever and afterward the [illegible] forms of the disease under the head of pernicious intermittent fever

Anatomical Characters

Bronzing of the brain and liver which in certain cases is found after death from ... illness and from pernicious intermittent fever, may be supposed to exist in more or less of the cases of simple intermittent fever in which the tissues ... ends in recovery. Aside from this there are no known lesions which are characteristic of intermittent fevers.

Clinical History.

The clinical history will embrace an account first, of the prodromata and second of the intermissions. In the majority of cases the attack is sudden. In a certain proportion of cases, however, there are premonitions of a variable period. The premonitions are not very distinctive of this disease consisting of pain in the head, yawnings, indisposition to exertion, loss of appetite and general malaise. Although not

very definite, they sometimes suffice to lead patients who have been repeatedly affected with intermittent fever to anticipate an impending attack. A paroxysm when complete, consists of three distinct ~~[illegible]~~ periods or stages, viz. the cold, the hot, and the sweating stages. Cold Stage. This stage commences with a feeling of chilliness beginning in the loins and extending thence over the back and limbs. The chill is more or less intense in some cases consisting of a slight creeping sensation of coldness with shiverings, and in other cases extremely severe. Muscular tremor commonly known as rigor may or may not accompany the chill. I have met with a single example of distinct rigor without a sensation of chilliness. During the chill, bristling of the hair over the body or

precipitation, and the appearance familiar as "goose skin" are often observed. Notwithstanding the sensation of coldness which the patient experiences, and the feeling of coldness when the hand is placed on certain parts, the thermometer placed in the axilla shows an increase of the temperature of the body. The thermometer, however, applied to the extremities, shows a decrease of temperature below that of health. The increase of the temperature of the body begins prior to the paroxysm. The sensation of coldness is sometimes limited to a part of the body as the [illegible], or to the extremities. During the rigor frequently the teeth chatter, and the movements of the body and limbs are sometimes sufficient to shake with considerable violence the bed on which the patient lies. During this stage the

patient frequently sighs, the pulse, which is usually accelerated, is small and feeble. The countenance has an expression of anxiety, the prolabia and face are pale, or frequently livid, and lividity is often marked at the root of the nails. The general appearance is as if the person had been exposed to intense cold. The circulation is sometimes completely suspended in the fingers, which are wavy in appearance, devoid of sensibility, and do not bleed if wounded. Other symptoms are mental irritability, a sense of oppression referred to the praecordia, pain in the head and limbs, and palpitation. The duration of this stage varies from a few moments to two hours or even longer. The average duration may be estimated at from a half to three-fourths of

an hour. The transition to the next stage is sometimes abrupt, but generally gradual: blushings of heat are felt, the rigors cease, the coldness as it were, melts away, febrile movement is developed, and the cold stage is then ended. The cold stage is not infrequently wanting, the paroxysm beginning with the hot stage. I have known a state of intense nervousness take the place of the cold stage. Gastralgia and gastric irritability, as denoted by incessant vomiting, are other morbid conditions which sometimes occur instead of this stage: also drowsiness or stupor and a condition resembling hysterical coma. Veritable coma is liable to occur in this stage in a form of the disease which will be noticed separately under the head of pernicious intermittent fever. In young children convulsions are

it to occur in the cold stage. Congestion of internal organs must necessarily be involved in the cold stage, inasmuch as there is less blood in the vessels of the surface, and the whole mass of blood is not diminished. But the primary and essential morbid condition underlies the congestion: in fact it is probable that the latter is an effect of an active contraction or tonus of the peripheral vessels, the blood accumulating in the internal organs in consequence of its being driven from the surface of the body. That the congestion incident to this stage does not stand in a causative relation to the other stages is shown by the fact that the cold stage is not infrequently wanting, and the other stages in these cases are not less marked than when the cold stage occurs. Hot stage—

This stage is characterized by more or less intense febrile movement. The skin becomes hot, the pulse is accelerated and full or bounding, the face is flushed, the cephalalgia continues, but the pain in the limbs and the praecordial oppression disappears. The thermometer in the axilla indicates a rapid increase of heat usually to 105° or 106° Fahr. Thirst is usually a prominent symptom. The intensity of the febrile movement varies considerably in different cases. The duration of this stage is from three to eight hours. It is evident, in this stage, the spasm of the vessels of the periphery, which existed in the cold stage, has ceased, and, in place of that morbid state, the distributing vessels of the surface of the body are abundantly dilated. Whether the dilatation be due to a paralyzed condition of the vessels or to an increased

attraction of the tissues for blood, our present actual knowledge does not enable us to decide.

Sweating Stage — Perspiration appears first on the face and afterward on the trunk and extremities. The febrile movement gradually abates, and at length disappears. The heat of the surface, cephalalgia, thirst, restlessness, etc. cease. The thermometer indicates a rapid defervescence, the ~~heat~~ falling to the normal standard. The patients obtains refreshing sleep. With this stage the paroxysm ends. As regards the amount of sweating, different cases differ; it is sometimes profuse, and sometimes slight. The duration of the sweating stage is variable, the average duration being three or four hours. The sweating is evidence that the febrile movement is about to cease. That it is the means of bringing the

paroxysm. To a close is by no means ordinary; it is a sign of the alternating intermissions and it may be an effect, rather than a cause of the decay case of the febrile movements. During and preceding the paroxysm urea, uric acid, and the chlorides in the urine are increased. The urine is not infrequently albuminous, and occasionally hæmaturia exists. The intermission called also the apyrexial period, is the space of time between two paroxysms. The period from the beginning of one to the beginning of the next paroxysm is called the interval, in distinction from the intermission. The duration of the interval is the basis of a division into quotidian commonly known as the different types of the disease. Each quotidian or type observes a law of succession in the succession of paroxysms a

wonderful fact belonging among the pathological
mysteries of which our present knowledge affords
no explanation. There are three simple types of
intermittent fever, viz the quotidian, tertian, and
quartan type. In the quotidian type the interval
is about twenty four hours, or the paroxysm
recurs daily, as the name imports. In the tertian
type the interval is about forty-eight hours.
The paroxysm recurs on the third day, reckoning
in the days on which two successive paroxysms
takes place. In the quartan type the interval
is about seventy two hours, or the paroxysm
recurs on the fourth day. As a rule the paroxysms
are uniform in each individual case as regards
the occurrence of the cold stage, the duration of
the several stages respectively, the severity of each
etc; but they present considerable diversity in

different cases. Of the three simple types the quotidian and tertian type are by far the most frequent. Examples of the quartan type are comparatively rare. Of 98.237 cases of intermittent fever in the United States army only 1.757 were of the quartan type. As regards the relative frequency of quotidian and tertian cases, either may predominate at particular seasons. In the same locality the majority of cases at one season of the quotidian, and at another season of the tertian type. In an aggregate of cases occurring in a series of years the quotidian type predominates. Of 98.237 cases in the United States army 51.623 cases were of quotidian and 44.857 cases of tertian type. Cases have been observed in which the paroxysm has recurred on the fifth, sixth, seventh and eighth day, and

hence there may be a quintan, a sextan, a heptan and an octan type of intermittent fever. Such cases however, are among the rarest of the rare curiosities of clinical experience. Anemia is incident to the disease, especially if it have been of considerable duration. The pallor of the face in cases in which the disease has been protracted, or in which frequent relapses have taken place, is often associated with a yellowish or sallow tint, and with more or less oedema, giving rise to a characteristic physiognomy. These characters denote what is called the malarious cachexia. General dropsy is an occasional concomitant or sequel. Notable anasarca, with effusion into the serous cavities, is sometimes incident to the disease, and does not therefore denote either a

Causation

The causation involves a special morbific agent commonly known as malarious. The existence of a special cause is logically inferred from the peculiar character of the disease, its limitation to certain localities called malarious, and the fact, that it is controlled by remedies having a specific operation. The production of the special cause was attributed to vegetable decomposition in marshy localities, and called marsh miasm, in 1717. by Lancisi, an Italian writer. This doctrine and the name have since been very generally adopted. But that something more than ordinary vegetable decomposition is depended for its production is sufficiently proved by the disease being

indigenous in certain localities, whereas in certain districts and countries in which vegetable decomposition must take place abundantly the disease never occurs. If produced in connection with vegetable decomposition it depends on incidental circumstances, peculiar to certain localities. Observation shows that it is generated more especially in marshy situations, but its production is not confined to such situations, and hence the name marsh miasm is open to criticism. The following statements embody points relating to our existing knowledge of malaria which are of practical importance. "1st It affects by preference low and moist localities." 2. It is almost never developed at a lower temperature than 60° Fahr. 3. Its evolution

r active agency is checked by a temperature of 32°: 4th It is most abundant and most virulent as we approach the equator and the sea coast. 5th It has an affinity for dense foliage which has the power of accumulating it when lying in the course of winds blowing from malarious localities. 6th Forests or even woods have the power of obstructing and preventing its transmission under these circumstances. 7th By atmospheric currents it is capable of being transported to considerable distances, probably as far as five miles. 8th It may be developed in previously healthy places by turning up of the soil, as in making excavations for the foundations of houses, tracks for railroads, and beds for canals. 9th In certain cases it seems to be attracted and absorbed by bodies of water

lying in the course of such winds as waft it from the miasmatic source." 10th Experience alone can enable us to decide as to the presence or absence of malaria in any given locality." 11th The proposition as countries previously malarious are cleared up and thickly settled, fever tends to disappear, in many instances to be replaced by typhoid fever."

The period of incubation is indefinite; it may be a few days only or a few weeks, but it is not infrequently many months, and probably years may elapse after the inhalation of the malarious poison before its morbid effects are manifested. This fact is one of the most wonderful of the striking facts pertaining to this disease. The liability to subsequent relapses without any fresh exposure to the specified cause, has been already stated.

as remarked by Grasseus this liability to relapses is to be regarded as denoting an acquired malarious diathesis. Auxiliary causes appear to be often necessary to give efficiency to the special cause. An attack is apt to occur after exposure to cold, over exertion, excesses in eating or drinking, etc. The activity of the special cause is also often awakened by the occurrence of some other affection. The disease occurs especially in the spring and autumn probably in consequence of the action of auxiliary causes in these seasons. The vernal intermittents are in general milder than the autumnal. The disease shows no preference for either sex and it affects all ages.

Diagnosis

In well marked cases the diagnosis offers no difficulty. The type is to be determined only by

the duration of the intervals and the comparison of the paroxysms. Latent and masked intermittents are not so easily recognized and in doubtful or positive diagnosis the effect of treatment is sometimes to be considered. Febrile paroxysms resembling those of intermittent fever are sometimes observed in connection with pulmonary tuberculosis; they may present the three stages well marked and recur at regular intervals. They often occur in the afternoon than in the forenoon, whereas the reverse obtains in intermittent fevers. The coexistence of tuberculous disease is to be taken into account in making this differential diagnosis, also the known exposure to malaria or otherwise. The treatment adapted to intermittent fever will sometimes arrest the paroxysms connected with tuberculosis

cardiac or renal affection. An herpetic eruption about the mouth is a frequent concomitant. The duration of the disease is indefinite. It not infrequently ends spontaneously after a few paroxysms, but in many cases it continues for weeks and even months, if not arrested by curative means. Its indefiniteness of duration is a striking point of difference as contrasted with the continued fevers; its self-limitation is not, as in the latter, restricted within a certain period. Another not less striking point of difference relates to the liability to relapses. Subsequent attacks occur in the great majority of cases. The liability to relapse remains for many years. In some cases, successive attacks occur regularly after a certain period, showing that in

these cases the relapses takes place in accordance with an intrinsic tendency, that is irrespective of external causes. The notion was formerly entertained that the tendency to relapse was lessened if the disease be left to end of its own accord, or "wear itself out." So far from this being true, I believe that clinical experience shows a diminished tendency to relapse in proportion as the paroxysms have ceased to recur, either spontaneously or from the use of remedies, thermetric observations may show more or less increase of the heat of the body at the time when the paroxysm was to be expected. So long as these fluctuations of temperature occur, the disease has not completely disappeared, and relapses are liable to occur.

chills connected with inflammation in some of the internal organs may suggest as readily the action of malaria in malarious districts. The regularity of their occurrence the inefficiency of treatment chiefly directed to a malarious affection and the discovery of the local affection will in time clear up the diagnosis. Happily the remedies indicated in malarious diseases are rarely useful in the cases in which intermittent fever is incorrectly supposed to exist. Obstructions in the urinary passages, such as catheterism or lithotrity are able to produce paroxysms resembling those of intermittent fever. If the observations of Scott of Salisbury be accepted as accurate the presence of the so-called ague plant in the urine is a diagnostic evidence of the disease

Prognosis. Ordinary or simple intermittent

ever as regards immediate danger is not a grave affection.
However the disease involves immediate danger, it is
to be considered as pernicious, and not therefore belong-
ing under the head of ordinary or simple intermittent
fever. An important fact is, an intermittent fever at
first devoid of immediate danger may become pernicious.
An ordinary or simple intermittent may prove remotely
serious, if it continue long or recur frequently by induc-
ing anaemia, generally dropsy, or the malarious cachexia.
The remote effects of the disease however are very
rarely in themselves fatal; death may result from
the association of intermittent fever with other affections.
It has been supposed that this disease exerts a protective
influence against the development of pulmonary tuber-
culosis; so far from this being true there is reason to
believe that it promotes the development of the affection
just named in those predisposed to it. It is not a small

calamity to contract intermittent fever on account of the liability to relapses and to recurrence of the disease in connection with other affections.

Treatment.

For the cure of intermittent medicine possesses specifics, if any remedies are entitled to this appellation. This statement applies especially to the salts of quinia of which the sulphate is the one most universally used. The sulphate of quinia will probably interrupt the recurrence of the paroxysms of intermittent fever in the majority of cases. It is always desirable to arrest the disease as speedily as possible. Its morbid effects are less in proportion as it is quickly arrested and the liability to relapses is diminished. There is no need of preparatory treatment. This position was taken by Flint in an article published more than 25 years ago: An experience embracing

many hundred cases in different climates, since the date of that publication, has abundantly confirmed the correctness of this position. Aside from the delay in arresting the disease, the measures heretofore employed to prepare the system for the sulphate of quinia or other special remedies were injurious. These measures were mercurial cathartics, emetics, and sometimes bleeding. They are not indicated in the treatment of intermitent fever. A consideration of no small importance, as enforcing an immediate employment of the abortive treatment, is the possibility of an intermittent fever at first simple or ordinary becoming after several paroxysms, pernicious. With respect to the time of giving the antiperiodic remedy, experience has led to the conclusion at which Bretonneau, Graves, Briquet, Trousseau, Murchison

and others have arrived, viz. that it proves most effective when given as near as possible to the paroxysm which has passed. It is probable that if it be given in the sweating stage the chances of preventing the next paroxysm are greater than if the administration be delayed until after this stage. As regards doses, the most effective plan is to give the remedy so as to produce evidence of cinchonism as speedily as possible. A preferable method therefore, is to give the remedy in smaller doses which are to be repeated at intervals of two or three hours until cinchonism is produced. The latter is indicated by tinnitus aurium and this effect is, in general, evidence that sufficient quantity has been administered. For an adult five grains may be given at a dose and repeated once, twice or thrice if necessary for the effect just.

ilated. But this method of treatment in a case
of median type. The chances that another par-
oxysm will or will not occur are about even.
In a case of tertian type the chances that another
will not occur [illegible] If another paroxysm
occur the same treatment is to be repeated. As
regards the form in which the sulphate of quinine
may be administered it is most effective when
given in solution its solvency being secured by
the addition of a minim of the aromatic sulphuric
acid for each grain of the salt. It may be given
however in powder or in pills: if the latter be
preferred they should be recently prepared. If
owing to the instability of the stomach the remedy
be not retained when given by the mouth it
may be given per enemas. The plan of treatment
first described is almost [illegible] invariably successful

if it fail. there is always reason to suspect that the [redacted] preparation of quinia employed is spurious or adulterated. For children and infants the doses of the sulphate of quinia are to be less than in adults. in proportion to the age. After the paroxysms are intermittent the remedy should be continued in small doses. from two to four grains daily. for a considerable period. If anaemia exist a chalybeate should be conjoined. The citrate of iron and quinia is an elegant preparation. Relapses are prevented by this after treatment. The diet should be nutritious and a little wine with meals is advisable. Costiveness are to be avoided. If there be constipation. it should be remedied by mild laxatives or enemas. Prof. Polli of Milan has reported cases in which the sulphites have proved curative. It is not

claimed that they arrest the disease like quini-
but that the severity of the paroxysms is progress-
ively diminished and the disease ends in a short-
time. He recommends the sulphite of magnesia
as the most efficacious which may be taken
to the extent of an ounce or an ounce and a
half in the twenty four hours, in divided
doses. Several American physicians of large
experience in malarious situations have return-
ed highly successful results from the
employment of the sulphite and hyposulphite
of soda. So far the curative measures of treat-
ment have been considered. Palliative measur-
es are indicated during the paroxysms. A full
opiate at the beginning of the cold stage often
appears to shorten and modify the severity of
the paroxysm. It sometimes indeed ends as an

abortive measure and may even effect a cure of the disease. It is known a sinapism applied over the whole length of the spine, at the commencement of the cold stage, arrest the paroxysm and effect a cure. During the hot stage relief is procured by sponging the body with cold or tepid water. Pieces of ice, ice water, or carbonated water may be taken freely. During the sweating stage comfort is promoted by wiping the body with warm flannel, and changing the linen and bed clothes, taking proper care to avoid exposure to cold.

Anæmia and general dropsy occuring as sequels claim tonic remedies into which the preparations of cinchona and iron should enter with nutritious diet and other hygienic measures calculated to restore the strength and

invigorate the body. Enlargement of the spleen is to be treated with the sulphate of quinia or other preparations of cinchona and a belladonna plaster or anodyne embrocations applied over the enlarged organ. If these measures fail the iodide of potassium may be tried.

The preparations of cinchona and other anti-periodic remedies are efficacious as prophylactics. Taken in small doses daily by persons exposed to malaria they ward off attacks of intermittent fever and they prevent relapses. There is no foundation for the popular notion that the prolonged use of the sulphate of quinia in small or moderate doses is prejudicial to health. It is claimed by Prof. Kelli that the sulphite is a prophylactic. He recommends as a preventive medicine the hyposulphite of soda

Thesis

By

Paul Bagley

of the

University of Maryland

on

Practice

Abroad

and

At Home

Thesis

Practice Abroad and at Home

Gentlemen:—

A Chinese Doctor of Medicine is a rare species of the genus homo a lusus naturae in mundo medicano.

Super capitum capillae non est inventum

In cranio sapientia est demi dementium

His head entirely shaved is an apt index to the utter blank of the interior cranium. His whole stock of medicine consists of a few leaves and chips of various sorts of bark and wood which are usually made into decoction and taken warm like tea.

A large portion of his practice is
in cases of venereal disorders, and
in cases of simple gonorrhoea he
is generally successful though
he does not the slightest knowledge of cubebs, copaiba, lotio
plumbi or nitrate of silver
A severe case of syphilis is
quite beyond their control
though their diaphoretics and
aperients do something to abate
the severity of the symptoms
Consequently this disease goes on
from bad to worse from
generation to generation untinged by all the disadvantages
of an almost tropical climate
and a constant continuation in
the causes of the complaint
& inveterate are the types of
this disease in China that they
will baffle the skill of the
most

[illegible] of European physicians.

It is nevertheless noteworthy that the children do not bear the marks of hereditary syphilitic poison to any such extent as might be expected; but appear generally bright and healthful.

Phthisis is common and is healed with their herb decoctions but of course to little effect.

Opium eating carries of its victims by thousands and of course quite baffles the skill of all medicine so long as the victim persists in his fatal practice.

As for surgical practice among the Chinese it is unknown.

I was for weeks suffering with severe tooth ackke and was unable, in several cities, to hear of a man that could extract it.

Any

any thing like an amputation would alike bring the patient and practitioner.

I heard of a young man in Japan who had his leg broken, and a European surgeon found an amputation to be necessary and so advised him. But the idea was so shocking to him that he must needs send several hundred miles to consult his father first, and in the mean time died.

The practice of medicine in Japan and China is but little different. Leprosy is common in both countries and they are usually congregated together in villages all their own.

I visited one such village outside the walls of Canton

and

and saw scores of wretched
wrecks of humanity lying in their
hovels or sitting beneath their
shade trees covered over with
the scales and sores, or the
great white scars where it
had passed. Their treatment
of this disease is the old
accepted plan to shut the
victim outside the camp. I am
not aware that they attempt
any remedial plan.

They are skilful in producing
abortions and I am not aware
that they have any law against
this or infanticide. The former
is common in Japan and the
latter in China.

Itch and other skin diseases
are common in Japan and their
so called doctors have not
knowledge enough to know that

little sulphur and burned over it. A Japanese always shakes his own hands and not his neighbors & highly fortunate premises

The only amputations I ever heard of in Japan or China are by officials in criminal cases. In Japan the man is placed upon his hands and knees with his head over a hole in the ground and the officer with a large sword sharp as a razor grasped in both hands descends at a single blow to make the amputation in the region of the atlas and it always successful the head rolling into the hole prepared

This treatment suggests a

remark

remark said to have been made by our celebrated Professor of Surgery some years since in the treatment of hydrophobia, that "the only way to overcome the disease is to kill the patient"

The Chinese officers are no less successful in such cases than the Japanese but are slower, performing seriously amputations upon the upper and lower extremities and lastly making a large incision in the cardiac region thrust the hand boldly into the side and succeed in plucking the heart from its place, still pulsating. An operation which I venture to assert has never been performed by the most skilful surgeon in Europe or America

The

celebrated Surgeons of London if they cannot perform their last named operations have nevertheless a high claim to our consideration on account of the operations they do perform

The patients that come before the Class in the great Hospital of London called St Bartholomew are generally pauper patients and the student who has only witnessed the careful and conscientious regard for life and limb manifested in the University of Maryland would be somewhat surprised at the haste and magnitude of St Bartholomew operations

It may not be of interest to know that the name of the house surgeon there is Mr. Butcher but it is suggestive

Jr

In a conversation with Prof. Stone of New Orleans recently who is not noted for weak news he remarked concerning the London Surgeons that they do not seem to appreciate the fact that in an amputation the prime consideration is to save as much of the limb and endanger the life as little as possible

During a stay of six months in London I saw operations by Paget and others such as you read of and while timidity should be no part of the surgeons character I think a due regard for life and limb should never be lost sight of in the haste of operations

The Anterior Splint invented by our highly esteemed and celebrated Professor of Surgery Nathan R. Smith

is a great favorite with Mr. Paget and is used in his wards in the St Bartholomews Hospital, London. It is also used in the Charity Hospital of the Louisiana University - here Orleans as I learned while attending some lectures there recently -

May the life that has so immensely alleviated suffering humanity - be long continued in the world.

I shall not soon forget the remarks of Prof. Dennis of the Louisiana University - on the treatment of membranous croup. He stated that the first case of the kind he ever saw died was after he had lost several by bleeding and mercury

This was the choice of an intelligent

intelligent lady who asked him if he was going to treat her child like all the others; he replied, yes. She asked him if he had said any of them; he replied, no. She asked him if he could promise to save he child; he replied he could not but the result She added "Then you shall not treat my child" and taking her babe from her breast she placed the sick child in its place and so nourished it for several days until the disease terminated by its own nature and the child was saved. He states that while he would not disparage the use of medicine it should ever be borne in mind that there are many diseases that

run

men only a similar result and if the system can possibly be kept up by proper nourishment until that time has passed nature usually will effect a cure. It is stated that the vapor bath made by placing a hot brick in water under the bedclothes was not only in every highly beneficial but had a tendency to allay the apprehensions of parents and keep anxious friends from annoying the little sufferer thus placed out of sight.

I was also forcibly struck with a lecture on the abuse of coffee and tea showing that many of the diseases we suffer are directly traceable to the excessive use of these stimulants

I think if he had added salt pork and salaeratus bread to the list of things improper to use he would have spoken further truths in regard to diet

The Professor of Physiology was quite enthusiastic on the subject of ventilation declaring that 1000 cubic feet of air was the least that the Confederate service had appointed for each invalid and that 2000 cubic feet was nearer the requirement for every man

These things are mentioned as confirmatory of the lessons received from our learned and beloved Professors in the University of Maryland whose instructions in the science and practice of medicine I have not seen surpassed in any part of the world

mar Col

God bless our University
And may she prosperous ever be
Increasing, ever may she stand,
In Maryland my Maryland

The mode of
instruction in which we have
been instructed in our
University must fill up
the remainder of this paper
and then can only be
slightly glanced at.
Intermittent & Remittent fever
The main reliance is
quinine It stands as a specific
Should be given immediately
after the chill has passed
off in order to get the
system fortified for the next
attack. As high as eighteen
grains may be given but
much less will usually
accomplish

accomplish the purpose larger doses may be given but there is some danger in giving excessive quantities of this truly valuable antiperiodic Typhoid Fever

There is no specific for this disease. The treatment is generally what is called expectant that is watching the indications and treating them as they arise. That is to say, if the patient is costive give an aperient. If unable to sleep give an opiate. In cases of extreme fever tincture of veratrum viride may be given or something else to allay the fever and give the patient a chance to recuperate.

Great attention should be paid

to

to diet in this disease sustaining the patient by beef tea and all plain nourishing food. The sick room should be well ventilated but no draught allowed over the patient.

Yellow fever. Sustaining treatment is recommended here. Mercurials are objected to by Prof. Stone of the C. who lectured before the class some two years ago. Prof. Mc Shane however thinks that mercurials may be used to advantage in this disease in some cases

Scarlet fever. Keep the bowels regular and supplied with some proper nourishment. Sponge the skin with cold water which will tend to allay thirst. Watch the individual symptoms of the disease as they arise. There is no specific

Pneumonia

Pneumonia. In this disease the lung is solidified which is indicated by dullness on percussion A blister will generally afford some relief. Should be placed where there is the greatest pain The pain should be relieved as before mentioned on extreme cases; bleeding should not be resorted to Patient should be kept warm and diaphoretics may be used to advantage in its latter stages

Bronchitis. Sometimes the air passages are entirely filled with mucus etc and the system needs to be sustained in order to resist the disease It will not do merely to get rid of the mucus because it will soon form again Carbolic acid will afford

temporary

relief. Iron may be indicated in cases of anemia of the system.

One of the best diaphoretics is a half dozen pair of blankets by which a full perspiration may be brought about and the inflamation removed from the tubes.

Phthisis. Usually attacks the upper part of the lungs No specific and indeed no reliable remedy. May be alleviated and mitigated by cod liver oil and moderate gentle exercise in open air. Remove your patient to the hills or mountains for fresh air but keep him away from the injurious colds of harsh winters Bright disease. Brought on frequently by drink. Is a running off of the serum of the

the

Head. Much more common in northern than southern latitudes. Send your patient south as the prime remedy. Relieve the Kidneys as much as possible. Stop his grog.

Dyspepsia. Calomel may be given to act on the liver but it is better if possible to regulate the diet as to enable the stomach mutually to regain its tone and power.

Dysentary Generally rather a closure of the bowels than an opening through there are frequent passes: but a hard obstruction is generally found in the small intestines. Treat with castor oil and such remedies as will tend to remove such obstruction.

Diarrhoea. Frequent discharges from the bowels sometimes bloody.

Treat

Treat with Mur: tinct. ferri to build up the wasted red corpuscules of the blood. Give rhubarb to impart warmth to the stomach and a mild opiate in case of intense griping pains.

Amenorrhœa. Give iron and aloes to bring on the courses.

Dismenorrhœa - Tonics

Hyperlactitin - Wean the child and take iron and tonics

Hysteria Shower bath or any thing else that will produce mental reaction.

Procidentia uteri. Replace and keep in place with proper instrument

Anteversion and Anteflexion. Replace

Childbirth. Place on proper bed introduce the hand and render assistance if necessary. Never use instruments if can be avoided

Cut

Cut the cord after first respiration
Place child on side and rotate
from side to side gently pressing
if respiration be delayed. Deliver
the placenta. Keep mother
quiet.
Wet nurses. Should be healthy
and kindly disposed; should
not be employed but in case
of necessity. Mothers should nurse
their own children; otherwise the
womb is not contracted as is the
case in suckling. Besides children
are borne too rapidly and are
not strong.
Menorrhoea. Treat with cubebs
copaiba injection of nitrate of
silver or lead lotion the latter
not so dangerous and in this
way arrest the structure and
cut off the discharge
Chancre and syphilis.

Treat

Treat with mercury and iodide
of potassium
Epilepsy. Bromide of potassium.
In that he is not guilty of
Masturbation which sometimes
is frequently connected with if
not the cause of this disease
Spermatorrhoea. Bromide of potassium
or iron and quinine. Keep
his imagination pure. Let him
marry if at all able & will
generally cure him.
Amputations Better saw through
bones of foot than dissect through
joints. In all amputations take
off as little as necessary.
When false limb is to be worn
circular amputation better
than flaps. Take up the arteries
carefully. Use cold water
dressing in cases of wounds and
amputations because other things

of this

cause unnecessary inflamation
In gunshot wounds if the ball
is found always out for it
If not found never out to seek
it.

Trepaning. Always trepan
with but or three twenty dollar
gold pieces if they bring them
to you but remember that
our excellent Professor of
Surgery has instructed us that
the gold is not to go in the
patients head but the Dr's
pocket

Practice patience with your patients

With the highest regards
and praying the blessing of God upon
your honorable Faculty I am gentlemen

Your adoring pupil
Paul Bagley

To the Dean & Faculty
University of Maryland
Jan 27th 1870

AN

Inaugural Dissertation

ON

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Of

Session of 18

Typhoid Fever.

In selecting Typhoid Fever as a theme
on a dissertation to be presented to
the Medical Faculty of the
University of Maryland I shall not
enter into an elaborate discussion
of the various views entertained
by the different Authors upon this
important disease. Surely it will
not be expected that I should
suggest anything new to the
Medical World being as it were
a mere tyro in Medicine. Therefore
I shall endeavor to be as concise
and as practical as possible in the
views I shall offer upon this subject.

It is a common febrile affection presenting a considerable diversity of symptoms yet having certain symptoms and characters by which we can possibly recognise it from all others with which it is likely to be confounded. It is regarded as an ordinary endemic fever to which all are subject irrespective of age sex or condition and is common to all inhabited districts. Causes of this nothing is precisely known. The circumstances of its production are very diversified. It is often generated in situations where a great many persons are crowded

together with inadequate & improper food and a confined & vitiated air. From the rational conclusion would seem to be that this disease would originate especially in prisons badly ventilated hospitals large Cities and on board of ships. Many Her persons brought every year to the Maryland Hospitals with this disease are poor emigrants from on bord ships. It is also a well known fact that young persons coming from the Country into large Cities besides are very apt to be attacked with it. From the above facts it might be inferred that the disease is produced by

human effluvia or excretions in a
state of decomposition but it often
originates in the pure air of the country.
It has been thought by many to be
contagious. Strong facts have been
adduced in support of this opinion.
Thus an individual coming into a
healthy vicinity from some place where
the disease prevails is taken ill
with it and several days afterward
others residing in the same house
are seized and the complaint spreads
among the neighbouring population
Such instances are recorded by Austin
Flint of Buffalo N. Y. also by Bartlett
in his work upon Typhus Fever

but against the opinion of its ordinary contagiousness is the fact that it is constantly springing up in isolated cases without any possible communication and in such instances it is usually non-infectious or contagious. Symptoms. and Course. The disease sometimes begins abruptly with a chill followed by the usual symptoms of fever; but it more frequently comes on insidiously and gradually increases so that it is often difficult if not impossible to fix the precise time of commencement or period of incubation. The patient complains perhaps of general lassitude soreness

of the limbs and often of headache;
the tongue is usually found to be
coated with a whitish fur, surface
but the face flushed pulse accelera-
ted and the appetite impaired. These
symptoms usually continue for a week
or two before the patient feels himself
ill enough to take to bed.
Sometimes during this period a slight
chilliness alternates with febrile
sensations; yet it happens that the
patient complains of no chill. When
the disease is completely formed all
chilly sensations subside. There is also
not unfrequently during the introduc-
tory stage looseness of the bowels a mon-

ning of the diarrhoea - when this is not the case there is an extraordinary susceptability to the action of cathartic medicine. The disease may now be regarded as fairly under way exhibiting the ordinary phenomena of fever, such as a frequent pulse elevated temperature flushed face headache pain in the back and limbs complete loss of appetite thirst and great general debility. The flush of face in this disease is more of a purple tint than in most other fevers; when this is absent it presents a dusky hue. Not unfrequently epistaxis takes place. As a rule I believe the above named symptoms continue with little

or no change for several days save
a gradual increase. The pulse now
becomes more frequent but less strong
the skin assumes more heat and dryness
the tongue though previously moist now
becomes dry and brown with its tip and
edges somewhat red; the dusky hue
of the countenance becomes more marked,
the abdomen tympanitic and tender-
ness upon pressure situated usually in
the right illiac region. The urine
most invariably is scanty & high colored.
Such I believe it is said is the usual
course of this disease until about the
seventh or ninth day. Other symptoms
are now superadded. The abdomen

becomes extremely distended the tongue brown and dry. Upon examination of the surface we usually discover a few rose spots resembling flea bites which make their appearance principally upon the abdomen; sometimes they are found to make their appearance upon the extremities but such is a rare occurance. In the non malignant cases we have delirium, stupor, epistaxis, diarrhoea, night sweats, subsultus, with occasionally perforation of the bowels the result of deep seated ulceration and death ensues.

Duration.- The duration of this disease is uncertain but usually protracted. Death may take place on the sixth

or seventh day; but so early a termination is very rare. Generally it occurs in the course of the second or third week and sometimes not until the end of six weeks or even later. The period of convalescence is equally variable; it sometimes begins on the seventh or ninth day but very rarely before the third week. Some of the mildest cases run on to fourteen or fifteen days; those of a severer character seldom become convalescent before the third or fourth week. The average duration of cases may be stated at from twenty to thirty days. The disease seldom lasts longer than six or seven weeks though

it has no fixed limits. The severity of the attack and the rapidity with which convalescence may take place are governed by its mildness or severity. Anatomical Characters. It is stated that there is scarcely a single organ of the body in which signs of inflamation are not sometimes found after death from this disease; for it is one of the peculiarities of this affection to develope local disease of an inflamatory nature; but there are certain anatomical changes which are especially characteristic of Typhoid Fever, and which are so seldom wanting that they may be regarded as pathognomonic, such as the ulcerated

condition of the glands of Peyer revealed by post mortem examinations. These are considered quite as characteristic of the disease in question as the peculiar pustular eruption is of small pox. It has in fact so says Dr. Wood become to be regarded almost as a necessary post mortem test of the existence of the disease. The affection had been observed by various pathologists but to Louis I believe it is said that the credit is especially due of fixing its precise relation to this form of fever.

Diagnosis. The most characteristic symptoms of this disease are the frequently slow and insidious mode of attack, the diarrhoea at the beginning or soon afterward, the

dul or heavy expression of the countenance, the dusky hue of the face, the tendency to epistaxis the cough and bronchial rales and after the seventh or ninth day the dryness & the tongue and general diminution of the secretions, the rose colored eruption, the tympanitic abdomen, the dryness the stupor or delirium and the various signs indicative of the typhoid state. The enlargement of the spleen either perceptable to the touch or discoverable upon percussion may have some weight in the diagnosis. The duration of the disease according generally that of all other fevers is also an important diagnostic character. However I do wish to be understood that all these sym-

ptoms are necessarily present in every case,
the diagnosis may be very certain though
many of the just named symptoms be
absent.- Typhoid fever may be confounded
with several of the febrile diseases; but the
one with which it is most likely to be is
the remittent or bilious fever.- The latter
however may be distinguished from the
one in question by the yellowness of the skin
by the yellow vomiting, by its shorter duration,
by its regular and more decided remissions
and by the absence or comparative rarity
of characteristic symptoms of Typhoid Fever-
such as diarrhoea epistaxis dusky complexion
lividness of expression tympanitis stupor
and rose colored spots: the sputum is less

involvd and ther is a total absence of the affection of the glands of Peyer also of the mesentric glands which are peculiar to the typhoid form; however it is sometimes very difficult to make a correct diagnosis especially when the bilious fever assumes the protracted typhoid type; but a close observener to the diagnostic characters above enumerated will generally enable the practitioner to attain a just conclusion. Prognosis.- This disease is a very serious though I believe not regarded as a very fatal one. It is however one of those affections which take on different degrees of violence under different circumstances the most desperate state is probably that

connected with intestinal perforation. the younger the subject the better his previous state of health and the more favorable his hygeanic situation be the more hopefull will be his prognosis.-

Treatment.- As diarrhoea is one of the common attendants at the onset of this affection or if not there is an unusual susceptibility to the influence of cathartic medicine it is not deemed advisable as in most other febrile affections to commence the treatment with active and free purgation; yet the bowels should be thoroughly (evacuated) by some mild cathartic such Castor oil. If however there should be free & spontaneous evacuations then no laxative

should be dministerd. When the stomach is irritable or cathartic medicines worry the patient the same object may be effected by an enemata which should be mild and if the abdomen be much tympanitic it may be advantageously combined with oil of turpentine. Irritating and drastic Cathartics should never be used in this disease. The bowels having been evacuated if necessary the next indications are to obviate as far as possible the febrile symptoms. If the pulse should be full and strong and active congestion or inflamation of the brain or other vital organs are obvious endangering life blood may be taken from the arm to the amount of eight

twelve or sixteen ounces according to the condition of the patient. This remedy however is wholy uncalled for in the majority of the cases as there is a natural tendency in this complaint to prostration and debility. It especially therefore behoves us to husband the strength of the patient as much as possible; yet local bleeding may be resorted to at almost any stage when called for by active inflamation or congestion of particular organs even though there may be great debility care always being taken to proportion the amount of blood abstracted to the strength of our patient.-

Refrigerent diaphoretics may be employed from the commencement: such as citrate of

potass in the form of neutral mixture or effervescing draught. this may be given throughout the whole complaint every two or three hours when ever the skin is hot and dry and the pulse not very feeble: when nervous symptoms appear spt. Nitrous ether may be added to the mixture and if it should produce uneasiness of the stomach or bowls it may be usefully combined with small doses of laudanum, solution of sulphate of morphia or other preparations of opium If the patient be very wakefull & restless at night and as it is regarded good practice to procure as much sleep as possible a Dovers powder may be administered at bed time when not contra-indicated by the

existence of stupor. Cold ablutions are considered very useful in abating the fever, they may be applied to the legs and arms and when the skin is uniformly hot and dry to the whole surface. Ether alcohol & cold drinks possess no less virtue in effecting the same object. In the advanced stages of this disease certain local symptoms present themselves which require attention. such as severe headache which may be mitigated by the application of a few leaches behind the ears, cold cloths or ice to the head. If there is a determination to or active congestion of the brain a blister with great propriety may be applied either to the scalp or nape of the neck. Should

there be any abdominal tenderness a few ounces of blood by leaches or cups may be taken from the under part. Large mush poultices kept steadily upon the abdomen day after day are regarded as very useful. Sometimes it is advisable to add a small quantity of mustard or other rubefacients with the view: in obstinate cases of abdominal tenderness it may be proper to apply turpentine stoops or fly blister.- The diarrhoea may generally be allowed to take its course: but should it become exhausting it ought to be checked by small doses of opium & Ipecacuanha to which acetate of lead kino extr thalany or tanic acid may be added if necessary. Nervous symptoms such restlessness, wakefulness and

subsultus, may often be quieted by sweet
spt nitr. Hoffmans anodine or Camphor water.
But should the symptoms not yield un-
der such treatment and the tongue become
very dry and the abdominal distension re-
main undiminished, the oil of turpentine
will prove an excellant remedy. It may
be employed in all cases in the advanced
stages of this disease with advantage whil-
st the tongue remains dry. It should be giv-
en in the doses from five to twenty drops in
an emulsion of gumarabic sugar and water.
I will not attempt to enumerate the various
other treatments or agents employed in the
management of this affection as in my hum-
ble opinion each case should be treated

as an individuality or according to the case itself and not by any special method. Reg and must be paid to the age habits occupation and condition of the patient medicines as they seem to be needed, with good nourishing & digestible diet stimulants when necessary and proper ventilation. I hold methodism in the practice of medicine as a very dangerous error to fall into. our admitting of but little advance toward the skill of science on the part of the Doctor and not unfrequently damaging to the patient.—

Clinton Maynard

Febuary 4th 1870

Syphilis

Syphilis belongs to the class of diseases called "infectious", it has the following characteristics:—

1. There is a virus, by which the disease is carried from one person to another.
2. The safety which one attack confers against a second.
3. The "period" of incubation", the virus is latent, and there are no external signs of its being in the system.
4. There is a regular order which the different symptoms take to show themselves.

That there is syphilitic virus cannot now be denied, as it has been proved beyond all doubt

None at this time denies that there exists in Syphilis a contagious element by which the disease is communicated. It has never been detected by the microscope, chemical analysis or by the senses, yet its effects are sufficient to cause any one with sense to believe there is a contagious element.

All those theories which have professed to explain its nature, have been either foolish or unnatural. Syphilis is the chancroidal virus.

We have Syphilis but once.

All those diseases which are both contagious and constitutional, that a person who has once had them will not contract them a second time (as a general rule) Small-Pox, Scarlet fever &c:

are generally the same general [illegible], and in the
rare cases in which it does occur, the symptoms
are so mild as to prove the [illegible] showing the
protecting influence the first attack has to
modify the second.

This [illegible] as it is applicable to syphilis,
was first shown [illegible] in 18[illegible].

It is usually true after an attack of syphilis
occurs with only one attack of general symptoms
no matter how good and thorough their treatm-
-ent, and if one of these relapses [illegible]
caught [illegible] it is just set down to
a true syphilitic ulcer.

But unfortunately we are able to detect a recent attack
of syphilis by the [illegible] signs in [illegible]

the period of time following the connection [illegible]

the system and [illegible] and preceding the earliest

manifestation of its presence. [illegible]

being exposed to either Small-Pox [illegible]

if they take the disease, it [illegible]

in [illegible]

affection mentioned, and during the time [illegible]

good health. In Syphilis there is a period of [illegible]

[illegible] acquiescence of the virus following the appearance

of the Chancre [illegible] the general symptoms.

The order of Syphilitic symptoms.

[illegible] Primary, Secondary and Tertiary.

Primary symptoms include the [illegible]

where the virus entered the system, and [illegible]

[illegible] of the neighboring lymphatics.

in some they will be more violent and in others less so, depending upon the constitution of the patient, the hygienic conditions in which he is placed, his habits, and especially by treatment. But if we take a number of cases we shall find that the symptoms progress by a regular gradation. And if these symptoms be divided into classes, as for convenience first & second. Those of the first follow directly upon the [illegible] general symptoms before mentioned with which they are evidently identical in character. Those of the second class never occur until after a certain interval, which we can determine with precision. The order of the two classes is never reversed. The time passing [illegible]

in a measure by the constitution of the patient, his mode of life, and the treatment to which he is also subjected, and can therefore be determined only approximately. In most cases, when Syphilis is left to itself [illegible] uninfluenced by treatment, the earliest general symptoms nearly or quite disappear spontaneously, and, after a time, are succeeded by another set, which, in its turn, may give place to a third, and so on; the number of successive outbreaks varying in different cases, and commonly being in proportion to the intensity of the action of the virus.

Thus Syphilis usually shows itself not in a continuous but in an interrupted succession of symptoms, a fact of some importance, because too often the reappearance of Syphilitic manifestations is regarded [illegible]

while it is only in the natural course of the [disease]

in a majority of cases, even in the absence of treatment,

a spontaneous tendency to self-limitation, and its symptoms

ultimately cease to appear; leaving the patient in

a fair state of health. Perhaps the most important

question connected with Syphilis is, has the chancre

[illegible] of inoculation? Upon [illegible] it rests

questions of the greatest practical importance: 1st.

1. Is chancre a local or constitutional disease.

2. Whether its abortive treatment can prevent systemic

infection. This question cannot be solved by experiment,

because inoculation of a chancre upon persons already

infected is in most cases impossible, and upon non-infected

persons decidedly unjustifiable. The experience of the

best observers has been, that in a general [illegible]...

is very, it at a later period [illegible] than eight-
chancroid, and the interval between contagion and the
appearance of the ulcer is represented by [illegible]
[illegible] in the same time in the other.

Diday made minute inquiry of twenty-nine
persons whose chancres were of recent origin;
who had been exposed but once, and who had
had no previous connection for at least a
month, and found that the average interval
between the venereal act and the appearance
of the sore was nineteen-days. Gazette Med.
de Lyon, March 1st. 1858.

The books are filled with cases which prove
our proposition.

The inoculation of the secretions of the chancroid [illegible]

produces at first a pustule; the earliest appearance of the initial lesion of syphilis on the contrary is in the form of a papule, which tables on superficial ulceration, increases in breadth and thickness, and is but slightly painful, or frequently is elevated above the surrounding surface.

The induration of a chancre is specific hardness of the tissues around and beneath the sore.

Simple inflammation may occasion an effusion of plastic material and consequent engorgement of the sore; but specific induration is entirely distinct

character; that is, without inflammation; the deposit takes place in the absence of all the symptoms of inflammation, pain, heat, redness, and swelling; it is formed so silently, so insidiously, that the patient is often ignorant of its presence, and discovers it only by accident.

Pain, specific in duration and inflammatory engorgement differ in their objective symptoms.

The boundaries of the former are clearly defined, while the extent of the latter cannot be limited with nicety; the one terminates abruptly, the other shades gradually into the normal structure of the part; the first is a

[illegible] than the second [illegible] to the [illegible].

The difference in the sensation they impart to the finger is still greater; specific induration is so firm, hard, and resistant that it is often compared to a split-pea.

Unlike the chancroid, the chancre is rarely met with in groups of two or more upon the same subject, and the secretion from a chancre is much less than that from a chancroid.

68. Diagnosis of the Chancre. — The most reliable diagnostic signs of chancre are the period of incubation, the induration of its base, and the induration of the neighbouring

ganglia. Both of these diagnostic signs are rarely, if ever wanting.

Of the two induration of the ganglia is the most constant. The chancre as generally [illegible] time the chancre is, but often remains until after the appearance of secondary symptoms. Origin. Always derived from a chancre or syphilitic lesion. Has a period of incubation.

Anatomical characters - Generally single; multiple, if at all, from the first; rarely, if ever, by successive inoculation. Frequently a superficial erosion; not involving the whole thickness [illegible]

a mucous membrane, of a red color
and nearly on a level with the surround-
-ing surface. Sometimes.
Edges are sloping, hard, thin [illegible],
and adhere closely to adjacent tissue.
Surface [illegible] [illegible] smooth,
sometimes grayish at center.
Induration firm, cartilaginous,
circumscribed, movable upon tissue
beneath. Sometimes resembles a layer
of parchment lining the sore.
Generally persistent [illegible] a long time.
Pathological tendencies. Secretion
scanty, chiefly serous, inoculable with
great difficulty, if at all, [illegible]

patient or upon any person under the
syphilitic diathesis. Left indolent from
the chancre. Phagedena rarely super-
vened and is generally limited. One
attack affords complete or partial protection
against a second.

Characteristic glands affected
All the superficial inguinal
ganglia, more or less visible, enlarged
and indurated, distinct from each
other, freely movable, painless, and
rarely suppurate. Pus never inoculable.

Prognosis. Constitutional affection.
Secondary symptoms, more frequently
averted by treatment than

themselves in about six weeks from the appearance of the sore, and very rarely delay longer than three months.

W. B. Griffith

The Circulation.

In the discovery of this wonderfully beautiful arrangement in the animal organism, we have an example of the grandeur of the human intellect — of the boldness of its enterprises. And does it not bespeak something more than the workings of man's feeble mind — that a fact, so simple in its details, should have remained hidden for so many generations! May we not attribute this acquisition directly to Divine interposition!! Be it as

it may — we may picture the amaze-
ment of our 17- century fore-
fathers, as they listened to the
wonderful story of Harvey, en
deavoring to make plain what
seemed absurd to their un-
tutored minds. See how he
lays open the different cavities of
that central organ — the forcing
pump as it has been aptly
called — and now explains
one part, and now another.
And then again, he promptly
draws a diagram of that
system of tubes, running in
a tortuous course throughout

the body — This, he explains, is the great secret of nutrition — herein we have explained the process of decay and repair that nicely balanced interchange of particles between life & death, constantly going on in the healthy organism.

And from this beginning, the study of the circulation has continued to advance step by step. The general outline has been added to and built upon, till now we not only know of the arteries and veins; but can ex-

plain the difference between them and their contents. We do not vaguely say that the blood is taken up by the veins after being brought from the heart by the arteries; but we know that these two sets of vessels are connected by a third, whose diameter is too minute to be appreciated by the unaided eye. By the assistance of the lens, however, these hair-like blood-vessels, with their circulating contents, have been seen. Arteries and veins are not merely known to exist,

but their structure and action on the contained fluid have been satisfactorily explained. The different sounds of the heart have been accounted for, and its 'modus operandi' thoroughly investigated.

The blood, circulating in this maze far more intricate than the labyrinth of olden time, is, at the same time, both the store-house and scavenger of the body — from it every tissue must derive its supply of nourishment, and by means of it the waste of the body must

be got rid of. In the lungs it receives oxygen and gives off carbonic acid gas, which, if allowed to circulate in the capillaries, would extinguish the flame of life. That mysterious vapour must be supported by the same material that feeds the fire in the hearth, and without it, the feeble light flickers but for a time, and at last is extinguished.

The circulatory apparatus may be divided into four parts:— The Heart, arteries,

capillaries and veins.

The heart is the starting point, from which the blood is sent over the body. It is a hollow muscle, and has four cavities; two of which are filled with venous, and two with arterial blood. Like all muscles the heart contracts, but its contractions are regular & involuntary — we can not, at pleasure, cause the heart to contract, nor can we give it rest: its motions are uninterrupted — Comparatively — till they cease in death.

But to resume, that portion of the heart containing venous blood is situated on the right, while the left is the arterial side. Each side is made up of a superior or auricular portion, and an inferior or ventricular portion. There are certain orifices connected with the heart: the auricular, auriculo-ventricular, aortic and pulmonary orifices. The auriculo-ventricular, aortic and pulmonary are guarded by valves, and communicate between the auricles and

ventricles, with the aorta and pulmonary artery respectively. The auricular orifices have no valves — they communicate with the venae cavae and the pulmonary veins. The auriculo-ventricular valves are known — those on the right as the Tricuspid, those on the left side as the mitral valves. The other valves are called aortic and pulmonary — or the sigmoid valves. Now, to begin with the right side of the heart, the blood brought by the two venae cavae enters the

right auricle, from which it
passes into the right ventricle
from this cavity it goes to the
lungs by the pulmonary artery.
While passing through the lungs
it is changed from venous to
arterial blood, and made
fit to nourish the tissues. It
must now be returned to the
left side of the heart by the
pulmonary veins, which empty
into the left auricle. From
the left auricle, it passes to the
left ventricle. By the contrac
tion of the left ventricle, the
blood is forced into the aorta.

Attending the contractions of the heart, there are certain sounds known as the 1st + 2nd These have been supposed to be produced by the closure of the valves, the striking of the apex against the thoracic walls &c. – But whatever the causes may be, the sounds are present – beating the seconds, as it were, of man's fleeting days. The throbs of this all important organ are directly under the influence of the nervous system – they respond in frequency + force to this ever active

organism — so that we have the heart agitated and convulsed by fear, fluttering with anxiety or depressed by the sedative influence of grief. Muscular exertion also causes the heart to beat faster, and this, as I suppose, differs from the increased action dependent on emotional causes — for the muscles now call for a larger supply of nourishment, which necessitates an exalted action of this — the forcing pump, the heart, when most of the functions of

mind and body are at rest, we find this action diminished. From what has been said, it would appear that the demand on this organ is in proportion to the activity of the functions: so that when the organs are alive, so to speak, and actively engaged in their several offices, there is an increased demand for new material, wherewith the consequent waste is to be repaired. This, of course, causes the heart to pulsate more frequently—

We have seen that by the left ventricular contraction the blood is made to enter that huge arterial trunk, which, dividing into numerous branches, ramifies throughout the body — The circulation in the arteries depends chiefly upon the contraction of the left ventricle, but this is not the sole cause. The peculiar construction of these Tubes enables them to assist in hurrying on their contents — the elasticity of the arteries equalizes the current, & renders it

a more continuous stream.
Thus far the blood has un-
dergone no change — it has
been maintained in its
pure aerated condition —.
But now we have to consider
those vessels in which this
fluid is materially altered
and rendered unfit for the
nourishment of the tissues.
These are known as the capilla-
ries, in which the circulation
is continued by virtue of two
forces — the ventricular con-
traction + the elasticity of
the arteries — And may we

not include that well-known force – capillary attraction – by which the sap of plants reaches the top of the highest forest tree! These vessels have only one coat – so that the blood is brought in more intimate relation with the body. But, we are told, that the plasma leaves the capillaries – Transudes through their delicate walls, and bathes the anatomical elements of the tissues in its life giving constituents – Here it is that the process of nutrition is accomplished

and, consequently, we find the blood moving promiscuously among the tissues, without seeming to have any definite course. It appears to be arrived at its field of action and leisurely performing its appointed duty. It has been hurrying on its journey from the heart at the rate of (12) twelve inches per second, and now that it has arrived where it is needed, we find its motion retarded - being reduced to two (2) inches per minute - that there may be sufficient

time for the performance of that all important task— the renovation and the renewal of the tissues.
From these minute vessels the blood passes to the 3rd set— the veins— These, unlike the arteries, have valves, which aid the onward current of the blood. But the venous circulation is said to depend on three causes — Certain it is, however, that it circulates in the veins and finds its way back where it started. But its character has been changed — its color,

from a beautiful crimson has been changed to a dark purple, in consequence of the loss of oxygen and the absorption of carbonic acid. Thus the course of the blood has been traced throughout its circuit.

Jas. L. Spiller

King Wm. Va.
Jan. 3rd 1870

AN

Inaugural Dissertation

ON

[illegible]

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

[illegible]

Of

[illegible]

Session of Eighteen hundred sixty nine ~~1868~~ 1869-70

Contents

		Page
Case, No. 1	Abortion.	1
" " 2	Dysentery.	6
" " 3	Syphilitic Iritis.	8
" " 4	Orchitis.	12
" " 5	Purulent Opthalmia	17
" " 6	Labor, Face Presentation	19

Case No. 1 Date – Jan. 2nd 1869.

Name J. S. Age – 23.

Time since last Menstruated – Nearly five months.

Duration of present illness – Fifteen hours.

Symptoms during its course – Pain in the back, groins, and hypogastrium, abdominal from vagina with the discharge of a lump of something, about half the size of the hand.

Supposed cause – Fall down stairs.

Present condition – Extreme prostration; with severe bearing down pains; abdomen quite sore to the touch. Digital examination of vaginam, found it clear of contents; the os patulous, and swollen.

feeling very much like a piece of soft velvet.
Diagnosis - Abortion; brought on by a fall down stairs.

This being my first case, self confidence was somewhat lacking; so I consulted a friend, who advised the following -
Nourishment and perfect quiet, also

℞ Potassae Chlorat ℥ij
Potass Nit ℥ij
Sp Nit Dulc ℥iss
Tinct Opii Camph ℥iv
Aquae ℥iv

Ft. ℞ S/ A large teaspoonful every 2 hours.

Horsey M.D.

Half past 7 p.m. More comfortable; slept during the day.

Jan. 3d. She is still comfortable; slept well during the night; bowels moved once.

Jan. 4th. Violent head ache, and severe pain just above the pubis. Ordered a cloth to be folded in the shape of saturated with warm vinegar, and placed over seat of pain.

Jan. 5th. Found patient sitting up in bed. Entirely free from pain, and in good spirits. She improved daily until Jan. 9th inst. When her landlord, wishing to possess the house she occupied, threatened to put her in the street if she was not out of it by to-morrow. This in her present condition completely prostrated her. It being evening, I thought a night's rest might bring relief.

Jan. 10th. She passed a sleepless night in

Eight P.M. Easier; spasmodic symptoms [illegible]
[illegible]
[illegible]

Jan. [illegible] condition of the [illegible]
[illegible] in consequence of [illegible]
[illegible] her landlord; a note to him
stating her condition, stopped his
[illegible]
rallied.

Jan. [illegible] appetite [illegible]
[illegible]

℞ [illegible] ℥ij
S. 1 Teaspoonful 1 hour
before each meal.

[illegible]
[illegible].

[illegible]

Case, No. 2   Date - March 19th 1869.

Name [illegible].   Age 27.

Duration of present attack - Three days.

Symptoms during the same. Nausea and diarrhoea; second and third days griping pains with much straining; frequent desire to go to stool.

Present condition - Extreme prostration with considerable fever, and tongue very much coated. Pain increased on pressure.

Supposed cause - Apples.

Diagnosis Sporadic Dysentery.

Having heard Dr. [illegible] Kimball speak very highly of the following combination I thought I would try it.

℞ Pil Mass Hydrarg et Plumbi Acetat et Pulv Opii āā gr vj M ft Pil vj
S. One pill every 3 hours.

March 20th. Considerably improved, having slept during the night, fever abated, pain relieved, less desire to go to stool; evacuations presenting a more healthy appearance.

Treatment modified - ℞ Plumbi Acetat gr vj et Opii Pulv gr iij M ft Pil vj
S. One every 4 hours.

March 21st. Rapidly improving, had only 3 evacuations since yesterday, tongue almost clean, pulse regular, skin in good condition.

March 23d. Convalescent. Left the following prescription -
℞ Mist Cretae ℥ij et Tinct Catechu ℥iij et Tinct Opii ℥ij M ft S. Teaspoonful pro re nata

Case No. [illegible] Date — May 1st 1867

[illegible] S. Age [illegible]

Duration of present illness Few days.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] entirely.

Supposed cause — Cold.

Present symptoms — Eyes very much

[illegible]

[illegible]

[illegible]

[illegible] intensified.

[illegible] that in December last she

had some sores on her genital organs these

[illegible] there is an ulcer in her mouth nearly [illegible].

Diagnosis – [illegible]

Treatment [illegible] ℞ [illegible] Potass Iodide gr j
Ext Opii [illegible] gr j
M ft Pil x [illegible]
S. one pill every 4 hours

℞ [illegible] Nitrate gr j
[illegible] ℥ j
M ft Collyr
S. A few drops in the eyes 3 times daily

[illegible] both eyes, and kept wet with cold water.

[illegible] 2nd – Swelling very much reduced, [illegible]

[illegible] the [illegible] being [illegible] en-
gaged; that beneath the cornea was
of a dirty red color.
Wishing to get the [illegible]
of the [illegible] as soon as possible, I
[illegible] the [illegible] every [illegible]
hours.
May 3. Eyes clearing beautifully;
treatment continued with the follow-
ing addition. ℞ Sulph. Atropine gr. j
Aquae puræ ℥vj
S. M. ft. [illegible] drops in the eyes twice
daily.

[illegible] 4th [illegible], right
[illegible]
[illegible]

Treatment continued.

discontinued.

Case, No 4 Date May 7th 1869

Name - C. Age 23.

Duration of present illness - Five days

Symptoms during its course - A heavy dragging sensation, with much pain, and swelling in both testicles, fever, and loss of rest.

Present symptoms - Testicles very much swollen, scrotum tense, very hot and tender; pain in the groins, and back. Previous to present symptoms he was suffering from Gonorrhoea, the discharge having stopped, when the testicles became sore.

Diagnosis - Orchitis.

Treatment - The parts to be supported

and ℞ { Ext. Opii aq. gr viii
Aquae ℥viij M. ft
S/ Lotio to be applied to the part and kept constantly wet with solution.

also ℞ Magnesiae Sulphatis ℥i
Antim. et Potassae Tart. gr ½ M. ft
cht ij. S/ One immediately the other in the morning.

May 8th Condition much the same; passed a sleepless night, although he had taken ½ gr. Morphia the previous evening without my knowledge.

Ordered Tinct Hyoscyamus to be taken in teaspoonful doses every 4 hours. Local application continued.

May 9th_ Marked improvement, slept well during the night, pain relieved. Treatment continued.

May 10th. Improving.

May 11th. All the early symptoms returned with increased vigor. Perfectly wild all night with pain and fever. Ordered two leeches to the upper part of the sternum and the following -

℞ Antim et Potassae Tart. gr. ii. Aq. ℥i

S. Teaspoonful as required to keep up a nauseant effect.

The cause of the present unfavorable change was a long walk taken the previous evening. Requested him to keep his bed until permitted to leave it.

May: 12th. Pain and febrile symptoms relieved, pulse good, and skin acting

freely. After the removal of the leeches their bites bled for nearly two hours. Stopped Sol of Opium and directed the Scrotum to be painted with dilute Tinct Iodine and Ungt. Hydrarg to be rubbed on immedately after to be repeated on the following day. also the following -

℞ Mag Hydrarg gr vj
Ipecac Pulv gr iij - Mft Pil vj
S. One every 4 hours.

A seidlitz powder was given after the last pill.

The patient improved daily under this treatment till the 15th inst when his gums having become tender it was stopped.

The scrotum was then washed with warm water, and dressed with simple Cerate. and ℞ Potassae Chlorat ℥i
Aquae ℥viii
S. Tablespoonful 3 times daily.
May 18th Convalescent.
Requested him to take a seidlitz powder every morning for 3 or 4 days, and then on alternate days for a week.
Saw him in September, and found he had been enjoying perfect health since I attended him.

Case, No. 5. Date-June 1869.

Name-Infant. Age-[illegible]

Duration of present illness - Since a few days after its birth

Symptoms - Pain in the eyes - Eyes kept constantly shut, with inability to [illegible] & over accumulation of pus. On opening them forcibly with the aid of an instrument, the inside of the lids were found to have the appearance of bright red velvet, also thickness of the conjunctiva

Condition of Mother - According to her statement neither, no discharge from the vagina either prior or subsequent to her confinement. Having reason to suspect the truth of her statement, I formed the following

[illegible].

Diagnosis — [illegible] Purulent Ophthalmia the result of contact with an [illegible] discharge in the parts of the mother at the time of birth.

Treatment - The lids are touched with a solution of Borax once daily for three days with apparent improvement.

The treatment was then changed to the following lotion.

℞ - Zinci Sulphatis gr j
Glycerinae ʒij
Aquae Rosae ℥j
M ft lotio
S. To be applied freely with a soft camel's hair brush three times daily.

This was continued for two weeks with perfect success.

Case, No. 6   Visit July 16th [illegible] a.m.

Name [illegible] [illegible] [illegible]. Married 16 years.

[illegible] 4th. [illegible]

She being pregnant, and at full time;

pains set in but without [illegible]

[illegible]. Having arrived at the bed

side; I learned from the patient that the

pains commenced about seven o'clock.

Examination by the finger, revealed, within

an inch of the vaginal orifice a

soft tumour [illegible] filled with fluid;

this I supposed to be the bag of waters.

A severe pain coming on shortly after;

it gave way with a snap, the fluid being

thrown [illegible] [illegible] [illegible]

[illegible]. She complained of great pains

[illegible] came, and upon examination of the [illegible] [illegible] in a [illegible] [illegible], with the [illegible] [illegible] the [illegible] [illegible] [illegible].

[illegible] [illegible] to [illegible] [illegible] [illegible] [illegible] the [illegible] with an [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] position. [illegible] the [illegible] the superior strait, and [illegible]-ing it [illegible] the [illegible] its position [illegible] and each time a pain following forced it back again. the attempt was then abandoned.

By manipulation during the pains the chin was brought down, the [illegible] and [illegible] rapidly following. Fifteen grains of [illegible] Secale Cornutum was then given

with [illegible] the [illegible]. The mother was
in the [illegible] condition; the face was purple,
and of the [illegible] state. I supposed it
to be dead, but Dr. [illegible] thought
otherwise. He requested warm water
and a lump of ice to be brought; and
then [illegible], the child
when the water came he placed it sud-
denly in, and then out applying ice
to the thorax, alternately with the warm
water; finally the little [illegible] gasped
for breath. I then introduced a pipe
into his mouth and blew down it to in-
crease the air in the lungs. Respiration
being established the cord was cut and
the placenta delivered. The mother

rapidly convalesced without further treatment.

The duration of the labour was seven hours and a half.

AN

Inaugural Dissertation

ON

[illegible]

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

[illegible]

Of

[illegible]

Session of [illegible] 18

Bronchocele

From Βρογχος a bronchus and κηλη a tumor. This signifies an hypertrophy of the thyroid gland. The word is not only derived from the Greek writers but even in the same sense in which it is now employed. In Switzerland and France it is called "goitre" improperly if goitre the throat. It is known in England as the Derbyshire neck also by many other names in those localities in which it is prevalent. Bronchocele commonly called goitre exists as an endemic in the Appenine Pyrenees and

Alps. The hills south of China and
among the Himalayas mountains.
In this country it is often observed
in the hills and mountainous regi-
ons of Vermont. New Hampshire Con-
necticut. New York Virginia and Ma-
ryland. It is common in the western
part of Pennsylvania in the Allegheny
west also in the same part of the Ma-
ryland as those west. It is very
frequent in this state in those coun-
ties situated along the Blue Ridge
mountains. According to Prof. Cross
it is uncommon in our extreme so-
uthern states and in the lower.

In England it is more frequent in the counties of Norfolk & Derbyshire and Surrey. Indeed there appear few parts of the globe free from the disease. It is spoken of by Humboldt in South America and by Captain Franklin in the Arctic regions.
In the valleys and gorges of the Alps it is frequently accompanied and connected with cretinism. The affected being has a short stunted dwarfish body, shrivelled limbs, a large misshapen head, goggle eyes, vacant countenance and depraved intellect.
According to Dr Watson the most co

as are insensible to the demands of nature and obey without shame or self restraint every animal impulse. In many cases he is idiotic. In this country I have never heard of a case of goitre associated with cretinism.

This affection which is much more frequent in women than men. According to some writers are seldom or so it is seen. But Dr Watson speaks of it in a male amongst his patients. Of one hundred and sixteen patients of Dr. Simmons sixteen were men. It will be well to bear

in mind that the fashion of a[illegible] an-
ders a small [illegible] much more
a[illegible] in women than in [illegible]
[illegible] life [illegible] [illegible]. In the fe-
male the swelling is sometimes known
to come on rapidly or [illegible]
ing their confinement in [illegible]
& Copeland [illegible] seldom met with
a case in the female unconnected
with some kind of irregularity of the
menstrual discharge or in some ab-
normal of the uterine function. It is
frequently observed to undergo a temp-
orary enlargement at the menstrual
period. Some writers say it does not

occur before puberty. Dr Hutson states that he himself during his stay in Switzerland saw goitre in a little boy only four years old, the natives told him that it rarely made its appearance before eight years of age. But cases have been mentioned of children being born with a broncho-cele of considerable size, the disease may therefore be congenital.

Is bronchocele hereditary. Children born of goitrous parents often have it, but it may depend upon their being in the same place and exposed to the same cause which pro-

disease bronchocele in the parents.
The term bronchocele has been applied
indiscriminately to all swellings
or protuberances in the front of the
throat or at any rate to all enlar-
gements of the thyroid gland; when
as it should be restricted to hypertro-
phy of that part; an increase of its
natural structure with augmenta-
tion of its volume. The diagnosis is
usually sufficiently easy. It should
be distinguished from encysted and
other tumors by its shape and by
its mostly affecting both sides in
instances now and then occurs in

which the [illegible] tumor is the seat
of [illegible] pulsation, imparted to it
by the action of the carotids and in
[illegible] the [illegible] arteries in consequence
of [illegible] anemic state of the patient.
The nature of the [illegible] is readily
detected by the appearance of the
patient and the history of the case.
The diseases with which it may be
confounded are aneurism of the ca-
rotid arteries, varix of the internal jug-
ular vein, encysted tumor and swell-
ing of the lymphatic ganglion. [illegible]
[illegible] speaks of an exophthal-
mic goitre. This goitre is [illegible]

and occupies the side of the neck a part of it will necessarily project over the carotid artery and thus receive its pulsation. In this manner the disease might easily be mistaken for aneurism. The signs of distinction are the slow and indolent nature of the swelling, the absence of the bellows sound, and the facility with which the tumor in most instances may be pushed away from the cervical vessels when the head is bent forward so as to relax the muscles of the neck. Varix of the internal jugular vein is uncommon.

The enlargement of the [illegible] is seated low down in the neck above the sternum, and forms a tumor about the size of an egg, soft elastic and compressible. It is of a bluish color, has a tremulous pulsating motion, and is diminished or temporarily effaced by pressure on the distal portion of the vessel. The [illegible] tumor situated over the thyroid may simulate goitre. Seldom exceeding the size of an egg almost free from pain, soft and elastic, follows all the motions of the larynx. When the diagnosis is at

are doubtful Mr Liston recommends the
exploring needle.

Bronchocele should be of a soft elastic nature in the situation and shape of the thyroid gland occupying the front of the neck. It is rarely tender and the skin not raised and frequently one lateral lobe is larger than the other and occasionally the middle lobe or isthmus is solely or principally affected. It follows all the motions of the larynx unless the tumour be very large. This is a point of considerable importance when the diagnosis is at all

doubtful. The Liver is itself subject
to different kinds of enlargements it
may result from inflammation either
chronic or acute. When there it will
be hard tender and painful. But
it seldom inflames, when it does
it is supposed by many that it
occurs in this organ spontaneously
in scrofulous patients only.
Pain seldom occurs in this dis-
ase except when caused by pressure
or interference with the functions of
neighboring organs. The general
health is unimpaired. When the tu-
mor is of unusual size there may

be some difficulty of breathing from pressure on the larynx, especially when in the stooping position or altered state of the voice which often becomes hoarse and croaking. By pressure on the jugular vein it may cause congestion in the head or thickening of the trachea and obstinate cough sometimes mistaken for consumption. Or by pressure on the oesophagus it may cause difficulty of swallowing or death from starvation as mentioned by Dr Watson. When the tumor is bound down by the muscles of the neck it continu-

is to enlarge and to press on the parts
within. When the muscles are not in
tension the skin yields and the extra
growth of the tumor takes place ante
riorly.

The cause most frequently assign
ed to this disease is the use of sn
ow water or water impregnated with
earthy or calcareous particles which
the inhabitants of the Alps and other
places in which this disease is end
emic are habituated. In the western
part of this state bronchocele is ve
ry likely from the same cause. it
being a great limestone country.

water is very "hard" highly charged
with lime and magnesia. Dr. Ha-
thorne believes it to be due to some
deleterious properties of the air and
other unfavorable hygienic condi-
tions such as dampness and defici-
ency of light and intermarriage
of near relations in a stationary
population. Patients often refer it
again to some thrust or strain of
the neck. Dr. Pratt believes such an
accident may be an exciting cause.
It is supposed by some writers to be
more frequent in women than in
men from the fact that the form

[illegible] this malady [illegible] more fre-
quently than the other sex. Even the
nurse with Valentine, affirms that
young women [illegible] [illegible] [illegible]
parts where the neck is completely ex-
posed by this costume have been
relieved of this disease. The wearing
cravats or neckties is spoken of as
having a tendency to diminish the
swelling so visible in those parts
of the world where it is so frequent.
The internal structure of the tumor
depends upon its progress standing
and age. It is generally of a soft
gelatinous consistence discharging

on pressure a whitenin[illegible] to the
it in cases of moderate standing
In cases of longer standing it is
sometimes of a reddish colour[illegible]
to the feel intermixed with a n[illegible]
umber of cysts generally not larger
than a pea containing a glairy
matter and sometimes pus [illegible]
or a blood. Calcareous deposits
are occasionally found alone or in
union with cartilaginous produ-
ctions.

In the treatment of this disease S[illegible]
[illegible] has shown that the
best plan in those extreme cases

such as are found in the Alpine asso-
ciated with outdoor life is the remov-
al of the patients from the infected
locality to high light and airy
situation. And then to give them
good food exercise and other ap-
pliances of a health producing re-
gimen. The remedy as an internal
medicine which has superseded
all others in this disease is iodine
the discovery of this wonderful rem-
edy in bronchocele is claimed by
so many that it is almost impos-
sible to do justice to the claims of
Coindet and Prout upon the ben-

ner gentleman the honor of first usi-
ing iodine in this disease. Dr Coindet
of Geneva was the first who made th-
is remedy public. It is very extensi-
vely used not only in goitre but in
many other diseases of a scrofulo-
us nature. Prof. R. H. Smith of the
University of Maryland uses the iodide
of pottassium with alterative doses
of blue mass. This treatment is ver-
y successful. Iodine ointment is
frequently used. A piece of flan-
nel or oiled silk should be worn
next to the part for the double pu-
rpose of preventing the ointment

from wetting the [illegible] and keeping the neck warm. Prof. Hughes <u>recommends</u> a preliminary treatment consisting of light diet with gentle purgation. After a lapse of ten or twelve days the use of <u>Lugol's</u> solution may be commenced or the iodine in substance. The same writer states that the tincture is apt to prove <u>irritating</u> in this disease, and recommends in whatever form iodine is taken it should be combined with opium or an opiate and the effects carefully watched. After it has been taken for two or three weeks it should be suspen-

use for a few days when it may be re-
sumed as before. The protiodide of mer-
cury has been recommended in this disease
as causing a slight irritation in some
cases. The seton first recommended by
Gibson and afterwards by Quadri &
Physic has been frequently used in
the treatment of goitre but seldom with
success. It has been followed by extensi-
ve hemorrhage. And in some cases the
patient has perished from the result-
ing inflammation. The operation is sel-
dom performed now. The expedient
of tying one or more of the thyroid
arteries has been practiced but with

got any encouraging results in this disease
It was first performed by Mr Blizzard of
London since then by Walther of Germ-
any by Dr Jameson of Baltimore and by
several other surgeons. In some cases
no inconvenience ensued and the
Goitre became considerably reduced
in size, in others no visible effect of
any kind was produced. While in a
third class the patient either died
of haemorrhage or inflammation.
Most writers say that if it is relieved
at all by the ligature it is owing
to atrophy in consequence of the est-
ablishment of a collateral circul-

ation. When the tumor resists all cura-
tive treatment it has been proposed to
relieve the patient by extirpation but
The question arises is such a proced-
ure proper or justifiable or in a [illegible]
The Thyroid gland be removed with
reasonable hope of saving the patients
life. Experience answers no. This con-
clusion has been arrived at from the
fact that the operation has been per-
formed to seldom successfully. Shou-
ld the patient survive the immedi-
ate effects of the operation death will
be very apt to overtake him from se-
condary hemorrhage or from inflam-

ation of the cervical viscera, oesopha-
gus and respiratory organs. The extreme
inconvenience of large vessels occupy-
ing the most delicate portion of the
neck rendering it altogether unfavour-
able from the constant motion of
the larynx that much of it will
heal by the first intention. Perhaps
cases thus either we view the operation
in relation to the difficulties which
must necessarily attend its execution
or with reference to the resulting in-
flammation it is deserving of rebuke
and condemnation. So long as the
disease is merely a deformity and

may not interfere with any of the important functions of the body nor produce serious discomfort, we should not be justified in my opinion by performing or advising any surgical operation for the diminution or removal of the tumor. In [illegible] case where suffocation is threatened temporary which may be obtained by the subcutaneous division of the fascia and muscles of the part thereby removing tension and pressure from the respiratory passages.

Prof Gross recommends [illegible] incisions of [illegible] in the pulsating bron-

a constitutional depending upon an <u>a-nemic</u> condition of the system.
Local treatment is sometimes used consisting of inunction of iodine aided by leeching and blistering. Loss of blood from the affected parts occasionally beneficial from the tendency it has to reduce the repletion and to rouse the absorbents. From ten to a dozen leeches may be applied every six or eight days directly over the swelling and bleeding be encouraged by fomentation. It is said a rapid reduction of the tumor may sometimes be <u>effected</u>

to the application of blister. Prof
Gross recommends as a local appli-
cation equal parts of iodine and
camphorated mercurial ointment
well rubbed upon the tumor twice
a day. If internal form iodine
be taken it should be used with
care so as not to irritate the skin
otherwise inflammation not absorpt-
ion will be the result.
I have not thought proper nor wo-
uld my abilities permit me to ent-
er into a full discussion of all the
remedial agents used from time
to time in the treatment of this

disease. Suffering to give the general treatment as well as the general principals which my observation although limited, has brought me to believe. I regret much that is incompatable with the limits of my thesis to give ample reference. Although it is not the custom of the medical profession to consider anything unworthy of attention that has a bearing however remote upon this benevolent pursuit to which we have devoted our lives. Therefore I hope that this my first humble attempt to add something to our profession will not be entirely overlooked.